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Vol. XLI

NOVEMBER, 1933

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CONTENTS

For November, 1933

Just in Passing—

COVER PAGE—Windham Community Memorial Hospital,
Willimantic, Conn. Crow, Lewis & Wick, Architects,
New York City.

ORIGINAL ARTICLES

- What Medical Care Costs the Average Family..... 41
Donald B. Armstrong, M.D., Louis I. Dublin,
Ph.D., and Elizabeth J. Steele
- Modern Hospital Serves Connecticut Hill Towns..... 47
Raymond P. Sloan
- A Hospital Administrator Explores the Field of Nursing 55
Robert E. Neff
- How to Ensure an Accurate Count of Sponges..... 59
J. F. Baldwin, M.D.
- How a Small Rural Hospital Supplies Efficient Medical
Care 61
W. C. Tate, M.D., and W. S. Rankin, M.D.
- Study of Metabolic Disorders Is a Proper Hospital
Function 65
Franklin R. Nuzum, M.D., and Albert H. Elliot,
M.D.
- Carefully Chosen Books Have Therapeutic Value..... 69
Emma Tevis Foreman
- When Is the Private Hospital Liable for Negligence of
Its Nurses? 71
Joseph R. Corish, LL.B.
- A Pay Clinic to Match Incomes of Middle Class Groups.. 75
David J. Sandweiss, M.D.
- The Physical Therapy Service—How It Should Be
Organized 79
Norman Edwin Titus, M.D.
- The Wide-Awake Administrator Visits His Colleague's
Institution 87
Joseph C. Doane, M.D.
- A. C. of S. Adds 106 Hospitals to Approved List..... 93
- New Method of Operation Reduces Hospital's Power
Costs 95
Stewart Hamilton, M.D.
- Training Dietitian Interns..... 104
Mame T. Porter
- Thankgiving Dinner on a Hospital Tray..... 110
Leta B. Linch

THE diligence of the joint committee of the American, Catholic and Protestant hospital associations which has been representing hospitals in Washington is probably about to be generously rewarded. At its recent meeting in Washington the committee laid before Harry L. Hopkins, federal emergency relief administrator, the proposal that the federal government allocate about \$45,000,000 of their emergency relief funds for the care of individuals now receiving relief who need to be hospitalized. This would be paid to hospitals at the rate of \$1 for each patient day. While Mr. Hopkins has not yet committed himself to this proposal, he suggested that perhaps \$30,000,000 might be earmarked for this purpose. His attitude was much more friendly than it had been last summer and the chances of success seem bright. Furthermore an important precedent has been established in the recognition of health services.

The committee also represented hospitals in other ways. They presented a brief to the Internal Revenue Department indicating the reasons why hospitals should be fully exempt from the processing tax, they requested an exemption for hospitals in N.R.A. codes applying to milk and other food purchases, and they requested that hospitals be given an opportunity for representation in any hearings concerning the regulations about tax free alcohol for scientific purposes and the use of spirituous liquors for medicinal purposes. All told the work of the committee on this and previous occasions will probably benefit hospitals to the extent of many millions of dollars.



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CONTENTS

THE cost of hospitalized illness is by now a familiar subject with hospital administrators. But even yet it may occasion some surprise to learn that "the average single case of illness requiring hospital treatment costs more than twice as much as the average family's yearly expense for medical care." This cost includes, of course, all the costs of the illness whether paid to the doctor, the hospital, the nurse, the pharmacist, or to other persons. The challenging leading article this month, which presents new figures on the costs of medical care, should stimulate further thought about group payment plans. Incidentally it also gives some good actuarial data for hospitals considering the inauguration of group hospitalization plans.

WHAT would it cost to provide complete and adequate medical service to a representative group of people if they all paid for it on the periodic plan, and if physicians were adequately compensated? The Committee on the Costs of Medical Care put the figure at \$30 to \$36 per capita per year. By a rather novel method, Dr. David J. Sandweiss has computed that complete service, except dentistry and home nursing, could probably be provided for about \$20 per capita. While his computations involve certain assumptions, these seem to be reasonable. In any event his article on page 75 stimulates further thought.

TO bring modern scientific medical care to sparsely settled rural areas is a problem that has baffled many students. No one factor is more important in solving it than the existence of a good, even though small, community hospital able to provide physicians with the kind of service to which they are accustomed. The story of the success of one such rural hospital is presented by Doctor Tate and Doctor Rankin on page 61.

WHETHER they wish to or not hospital superintendents must maintain a lively interest

November Dinner Menus for the General Hospital	
Patient	114
Phyllis Dawson Rowe	

EDITORIALS

Training for Administration.....	84
Tax Exemption for Hospital Service.....	84
Expert Testimony	85
Ancient Yet Timely Advice.....	85
The Public Lags.....	86
The Private Public Ward.....	86
The Processing Tax and the Hospital.....	86

HOSPITAL ORGANIZATION SERIES

The Physical Therapy Service—How It Should Be Organized	79
---	----

THE HOSPITAL AND THE MEDICAL STAFF

Study of Metabolic Disorders Is a Proper Hospital Function	65
--	----

PRACTICAL ADMINISTRATIVE PROBLEMS

The Wide-Awake Administrator Visits His Colleague's Institution	87
---	----

THE PROBLEM OF THE MONTH

Is the Eight-Hour Day for Nurses Desirable and Feasible?	91
--	----

MAINTENANCE, OPERATION AND EQUIPMENT

New Method of Operation Reduces Hospital's Power Costs	95
--	----

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Training Dietitian Interns.....	104
Thanksgiving Dinner on a Hospital Tray.....	110
November Dinner Menus for the General Hospital Patient	114

WHAT OTHERS ARE DOING.....	46
----------------------------	----

SOMEONE HAS ASKED.....	64
------------------------	----

NEWS OF THE MONTH.....	116
------------------------	-----

NEWS FROM MANUFACTURERS.....	134
------------------------------	-----

MISCELLANEOUS

A Bit of Hospital History.....	45
Sixty-Six Hospitals Cut Operating Expenses 13 Per Cent	54
Last Year's Infant Mortality Rate Lowest in U. S.	
History	63
A Short and Striking Annual Hospital Report.....	68
Physician's Diagnosis Should Be Required Before Admission	74
Maintaining Quiet in the Hospital.....	78
Nurse Overproduction Has Missed This Field.....	83
Occupancy Varies With Hospital's Size, Report Reveals	90
The Hospital Can Learn From the Commercial World....	90
The Relation of Special Diets to Hospital Dietary Service	108
A Food Serving Plan That Has Eliminated Waste.....	108
Dietary Department Cuts Food Bill.....	108

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in the court decisions pertaining to their work. At any time a superintendent may be haled into court to answer for the acts of his co-workers in the hospital. Every superintendent will find it worth while to read the article by Mr. Corish on page 71.

THANKSGIVING is almost here. How better can you reach the hearts of your patients than by showing them some special attention on Thanksgiving? Practical inexpensive suggestions are offered by Leta B. Linch on page 110.

ISN'T it time to do a little rethinking of accepted hospital practices? Rev. C. C. Jarrell, president-elect of the American Protestant Hospital Association, has been doing such rethinking with salutary results. His article will appear in the December issue. The December issue will also contain some practical articles on the organization of an admitting department, on filing according to the new standard nomenclature, on economies in heat, light and power that will help tide over these difficult years.

FLASHES FROM THIS ISSUE:

"A danger confronting every hospital worker is the development of that desolating disease called institutional and personal stagnation." Page 87.

"Only recently have hospitals awakened to the fact that the school of nursing conducted under a joint program of nursing education and patient nursing service can be a financial liability." Page 56.

"In planning the construction and layout of a physical therapy department even the most efficient hospital architects in the country cannot rely safely on their individual knowledge and experience." Page 82.

"It has been said that a hospital is either a good one or a poor one depending on the quality of its food service." Page 104.

"Books should be used as part of the treatment a hospital offers and should be chosen with care, just as a patient's diet is given scientific study by a dietitian." Page 70.

THE MODERN HOSPITAL

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THE MODERN HOSPITAL

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What Medical Care Costs the Average Family

By DONALD B. ARMSTRONG, M.D., LOUIS I. DUBLIN, Ph.D., and
ELIZABETH J. STEELE, New York City

ONLY in recent years has much light been shed on the increasingly important question of the cost of medical care. Interest in medical economics was greatly stimulated by the organization of the Committee on the Costs of Medical Care in May, 1927. The committee conducted a survey to determine the annual costs of sickness among representative population groups and several valuable reports on this material have been published.¹

The Metropolitan Life Insurance Company, co-operating actively with the committee, also investigated the costs of treatment for sickness and injury among the members of the families of its own field force in active service for the year beginning October, 1930. The results of this study are herewith presented in summarized form. It is believed that a brief statement giving the high spots of the study with a comparison of the findings of the C. C. M. C. will serve a useful purpose, supplementing a still briefer statement² of a preliminary character presented before the American Medical Association meeting at New Orleans in

May, 1932. The data on the cost of medical care among 36,000 Metropolitan Life Insurance Company employees and members of their immediate families will soon be available in published form for those who desire a more detailed statement of the report.

The data, unlike the C. C. M. C. study, were secured from questionnaires returned weekly by all members of the field force—agents, assistant managers and managers as well as clerks in the various district offices. Each employee was asked to report weekly all expenditures for medical care incurred by himself and by the dependent members of his family. The form of questionnaire used showed the sex and age of the sick person, the cost of illness and the type of service received. It is true that because of the voluntary character of this co-operative effort, it was impossible to enforce a complete return from all persons or a complete statement of expenditures for every case of illness. The results of this study are therefore minimal rather than complete as a measure of the cost of medical care. Since the diagnosis was not always given when expenses were incurred, the results are rather uncertain on the score of the actual costs for certain specific diseases. Nevertheless, the find-

¹Publications No. 26 and No. 27 of the Committee on the Costs of Medical Care.

²Armstrong, Donald B., A Study of Sickness Costs and Private Medical Practice, Metropolitan Life Insurance Company.

ings of this study are believed to be essentially accurate.

Before giving the actual returns, it is important to describe the major characteristics of the group. Although records were received covering the costs of sickness for 120,334 persons, the survey cannot be said to cover 120,000 years of life for two reasons. In the first place, not all employees were in active service during the entire period in review, and in the second place the study of family expense was limited to "natural"¹ families. Altogether there were 96,000 person-years of life exposed, of which approximately 34,000 were used in the study of costs for total families.

Since the employees live in the more thickly populated sections of the country, the survey represents essentially an urban rather than a general population group. In fact, the distribution of these people is remarkably close to that of the urban population of the United States and Canada. No returns from rural areas and few from towns of less than 5,000 were received. But of those above the 5,000 limit, the distribution is fairly representative.

Family Incomes Were Above Average

Economic status of these families is a vital factor in the study of the costs of medical care and it must be given particular consideration. Accurate figures for the compensation received by these employees from the insurance company were available and were used as family income. Figures thus obtained represented less than the total family income, because data on interest, dividends, rents and wages of dependent members of the family were not available and could not be included. Nevertheless, the known incomes of these families were above those of the general population. Not only were the incomes higher, but they were less widely distributed, 85 per cent of the annual incomes for the natural families falling into the \$2,000 to \$5,000 group, while only 35 per cent of the families in the general population of the United States in 1928 and 40 per cent of the C. C. M. C. families fell into this same classification. This means, of course, that families with lower incomes cannot be considered as fully represented in the group.

The first and most general conclusion to be derived from the study is that approximately 3 per cent of income would cover all expenditures for the treatment of sickness and injury in each family if the family had only the average amount of illness. Unfortunately, however, this condition does

not obtain and the solution of the problem is not so simple. Actually, the cost of medical care varies from zero in some families to more than the entire year's income in others. Among the natural families with some illness expense, the annual cost of medical care was \$104.20 per family and \$26.58 per person. When families with no expense were included, these figures became \$98.46 per family and \$25.28 per person. The figures of the C. C. M. C., adjusted to represent conditions obtaining in the United States, were \$108.14 per family and \$24.58 per person.

About one-twentieth of the Metropolitan families actually reported no expenditure for medical

TABLE I—AVERAGE ANNUAL EXPENDITURE FOR MEDICAL CARE PER METROPOLITAN FAMILY¹ AS COMPARED WITH AVERAGE ANNUAL CHARGE FOR MEDICAL CARE² PER C. C. M. C. FAMILY BY INCOME CLASS

Family Income ³	Average	
	Metropolitan Survey	C. C. M. C. ⁴ Survey
All Income	\$104.20	\$108.14
Under \$1,200	49.17
\$ 1,200-\$ 2,000	63.46 ⁵	66.81
\$ 2,000-\$ 3,000	80.38	94.84
\$ 3,000-\$ 5,000	110.54	137.92
\$ 5,000-\$10,000	167.77	249.35
\$10,000 and over	270.34	503.19

¹Family consisting of husband and wife, or of father, mother and children.

²Total medical expenditures of the surveyed families equal 96 per cent of total charges.

³Annual income from Metropolitan Life Insurance Company for head of family reporting. Does not include income from other sources.

⁴Averages are adjusted to the standard distribution of families with respect to income and size of community, United States, 1928-31.

⁵Includes six cases out of 467 with income under \$1,200.

care during the year, one-half reported no expenditure or less than fifty dollars and three-quarters reported less than the average. At the other extreme were the 2½ per cent of families reporting expenditures of more than \$500 each. The expenditures for care may not measure exactly the amount of care received, since more or less free care, both medical and nursing, probably was received by some families.

Among Metropolitan families, as among those of the C. C. M. C., the doctor received approximately two-fifths of the total expenditure for medical care, the dentist received one-sixth and the hospital and the drug store each received one-eighth.¹ The nurse received about 8 per cent of the total among C. C. M. C. families but less than 5 per cent among Metropolitan families. Since most of the Metropolitan family members were eligible for the

¹A natural family was defined for the detailed study as a family consisting of husband and wife, or of father, mother and children, the head of which had been in continuous service with the Metropolitan for approximately two years.

¹This comparison, as well as the following ones, is made between the Metropolitan crude results and the C. C. M. C. results adjusted for standard income and size of community distributions. It is realized that standardization of the Metropolitan results would have been preferable, but since this was not possible the reader is cautioned to bear the distinction in mind.

company's free industrial nursing service, this difference in results is not surprising.

When the proportion of families receiving certain types of medical service is considered, the results of the Metropolitan and the C. C. M. C. studies were remarkably similar. In both cases approximately 85 per cent of the families reported doctors' service, approximately 50 per cent reported dental service and 20 per cent reported hospital treatment. Three other services showed greater differences. Among Metropolitan families 89.1 per cent purchased drugs, 8.8 per cent paid for nurses' service and 21.5 per cent reported oculists' service for refractions and glasses.

Among C. C. M. C. families, on the other hand, these percentages were 97.0, 17.3 and 13.4, respectively. The difference in the purchase of drugs may be explained by the difference in the technique of the two surveys. Since the Metropolitan questionnaires were completed voluntarily, small expenditures for drugs were no doubt omitted in families where only minor illnesses occurred, while such expenditures were recorded in the C. C. M. C. study as the result of the nurses' questions.

Among the principal services, those required least often are the most expensive. The cost of hospital care for those Metropolitan families requiring such services was \$73.41 per family and the cost of nurses' service was \$53.56. The doctor's service, more commonly required, averaged \$47.36 per family and the dentist's bill averaged \$30.05 per family. The family drug bill averaged \$15.11 per year. In the C. C. M. C. study the charges for these services were: hospital, \$67.07; nurse, \$48.33; doctor, \$49.18; dentist, \$32.69, and drugs, \$14.33.

Cost Varies Directly With Family Income

All of these figures were averages and did not apply necessarily to any particular family. In fact, one-eighth of the families reported one-half or more of the expenditure for each service. One-eighth of the families spending more than \$100 a year for doctors' service or for nurses' service reported one-half of the total expenditures, while the eighth that spent more than \$60 a year for dental service reported one-half of the expenditure for that item.

That the cost of medical care varies directly with family income has been noted in previous studies and is confirmed by the findings of both the Metropolitan and the C. C. M. C. Several factors enter into this result. Not only are charges somewhat graded to income by those furnishing the services, but the family chooses its services according to its ability to pay for them. Among the families with incomes of less than \$2,000 a year, medical care

cost on the average \$63 per family, while among families with incomes of \$10,000 and over, the care cost \$270 per family.

Although this difference in expense between families of highest and lowest incomes seems marked, the increase is not in proportion to the increase in income. Among the poorest Metropolitan families medical care absorbed 3.6 per cent of the family income, while among the wealthiest families only one-half as much, or 1.8 per cent of income, was expended on medical care. Table I, taken from the complete report, gives the results of the Metropolitan survey as compared with those of the C. C. M. C.

The Effect of Geographic Location on Cost

The two other factors for which data are available do not show such consistent results. About 3.0 per cent of income was expended on medical care regardless of size of family, so that the per capita costs decreased from \$47.01 in families with no children to \$13.44 in families with six or more children. In three-fourths of the cases of sickness studied individually, the expense per case was less in families with six or more children than in families with no children or with only one child. This was particularly well marked in the case of confinements, the expense varying from \$166 per case in families with no child living to \$142 in families with one child in the home, to \$109 in families with two children and to about \$75 in families with three or more children. Since obviously the need for care is approximately the same in all families, the determining factor must in the main be the ability of the family to meet the expense.

The effect of geographic location on cost was not marked. The cost was greater in the United States than in Canada, being \$105.43 as compared with \$82.40. Within the United States the expense was largest on the Pacific Coast. Measured as a percentage of income, the differences were at the most but six-tenths of 1 per cent. Also, each of the items that entered into the expense of medical care was found to cost more in the United States than in Canada, with the exception of drugs and household assistance.

The average payment in the United States for doctor's care was \$48.24; for dentist, \$30.70; for nurse, \$56.85, and for hospital, \$75.01. In Canada these averages were \$31.17 for doctor, \$19.22 for dentist, \$21.31 for nurse and \$44.47 for hospital. While professional services were used more often in the United States than in Canada, self medication was more pronounced among the latter families. Not only did more families report expenditures for drugs—95.2 per cent as compared with 88.7 per cent—but the average family bill was

TABLE II—PROPORTION OF HOSPITALIZED CASES REQUIRING GIVEN SERVICE WITH AVERAGE EXPENSE PER CASE BY INCOME CLASS OF HEAD OF FAMILY

Type of service	All Incomes	Income less than \$2,500	Income \$2,500 to \$5,000	Income \$5,000 and Over
Doctor				
Per cent reporting given service	78.6	77.0	78.2	89.8
Average expenditure per case	\$82.49	\$71.87	\$82.18	\$132.12
Hospital				
Per cent reporting given service	100.00	100.0	100.0	100.0
Average expenditure per case	\$69.14	\$61.73	\$71.00	\$91.42
Nurse				
Per cent reporting given service	20.2	16.0	19.7	46.5
Average expenditure per case	\$70.16	\$59.90	\$65.96	\$103.98
Drugs				
Per cent reporting given service	51.0	50.0	51.3	52.8
Average expenditure per case	\$8.96	\$7.79	\$9.31	\$11.76

\$19.74 in Canada as compared with \$14.83 in the United States.

Having considered the cost of medical care as a unit, let us examine the causes of illness that were responsible for these costs. The minor respiratory group of diseases was the most frequent cause of sickness and care of the teeth ranked second. After these, the causes occurring with greatest frequencies were accidents and accidental injuries, common disturbances of the digestive system, care of the eyes, diseases of the skin and cellular tissue, and then confinements, abortions and miscarriages, in the order given. In the C. C. M. C. study the ranking was similar except that health and preventive services were more frequent than accidents, and immunizations ranked before care of the eyes. But as both of these services are often performed without expense to the individual, it is not surprising that in the returns received from Metropolitan districts, giving expenditures alone, these two types of medical services should be less frequently mentioned.

The Most Expensive Illnesses

In both investigations the conditions with largest combined expense were first, care of the teeth; next, puerperal conditions and, third, minor respiratory conditions. After these there were some differences in the relative rankings. In the Metropolitan survey, all accidents and injuries, appendicitis, nonvenereal diseases of the female genitourinary system and tonsil and adenoid operations fell in the fourth to seventh positions, while in the C. C. M. C. study the causes with the same rank were appendicitis, accidents and injuries, tonsil and adenoid operations and care of the eyes. The most expensive single illnesses were caused by diseases of the bones, cancer, diseases of the lungs, hernia and intestinal obstruction, tumors, appendicitis, ulcers of the stomach and intestines and goiter. It may be noted that of these latter, appendicitis was the only cause occurring frequently enough to be

included in the above listings of largest-combined-expense causes of illness.

Since we were particularly interested in the most burdensome cases of illness, those requiring hospitalization were studied in some detail. We found that the average single case of illness requiring hospital treatment cost more than twice as much as the average family spent for medical care in an entire year.

What Hospitalized Illness Costs

Altogether, there were 4,519 cases of illness requiring expenditures for hospital treatment. This gives an annual rate of 162.3 cases who received hospital care per 1,000 families and 47.2 cases per 1,000 persons. The C. C. M. C. reported a hospitalization case rate of 60.1 per 1,000 exposed when data were adjusted according to the standard proportion in the several income classes. They also stated that according to the fundamentals for good medical care the rate should be 113.5 cases per 1,000 individuals. Although the Metropolitan results are incomplete, a part of the difference may be due to the fact that few persons of advanced age were included.

Hospitalization was more common for adults (50.7 per 1,000) than for children (40.2 per 1,000) and more common for female adults (78.2 per 1,000) than for male adults (21.7 per 1,000). A part of the difference between the rates for the two sexes may be explained by the frequency of hospitalization for female conditions. These conditions do not account for the entire difference, however, as such diseases as the minor respiratory diseases and mastoid operations gave higher case rates for women than for men.

Puerperal conditions were hospitalized more often than any other disease or condition. The case rate was 3,535.6 per 100,000 adult females. Diseases of the respiratory system ranked second, the case rate being 1,188.2 per 100,000 persons exposed; diseases of the digestive system were third

with a rate of 629.1 per 100,000, and external causes ranked fourth with a rate of 405.5 per 100,000. Among specific causes confinements ranked first, tonsillectomies were second, appendectomies were third and diseases of the female genitourinary system ranked fourth. Benign tumors and tumors not returned as malignant ranked fifth. No other single cause had a hospitalization case rate as high as one per 1,000 exposed.

The average expense of a case of hospitalized illness was \$163. Actually the illnesses varied in cost from less than \$10 to more than \$5,000 per case. In one-third of the cases the expense was greater than the average, in one-quarter it was greater than \$200 and in almost one-fifth it was larger than \$250 each. These expenses included hospital charges, doctors' and nurses' bills when these services were necessary, charges for x-ray photographs, laboratory tests, drugs and for the extra household assistance needed. The doctor and the hospital each received about two-fifths of the total, the nurse received one-twelfth and the other services shared almost equally in the remainder. The family income affected this as it does the expenses of illnesses cared for in the home, so that not only was the expense greater for each service in the higher-income groups, but a larger proportion of the additional services were used. Table II illustrates this clearly.

The particular causes of illnesses with high hospital bills were those requiring hospitalization for

long periods, such as tuberculosis of the respiratory system, diseases of the bones, diseases of the gall bladder, diseases of the heart and arteries and cancer and other malignant tumors. Those with high doctor bills were those in which surgical treatment was necessary, such as diseases of the ear and of the mastoid process, diseases of the bones, diseases of the thyroid gland and cancer. Unusually heavy nurse bills were incurred for diseases of the kidney, bladder and annexa, diseases of the heart and arteries, diseases of the eye and annexa, acute anterior poliomyelitis and cancer.

Finally, an investigation was made to determine what proportion of the total cost of medical care in each family was expended on hospitalized illnesses. In one-quarter of the cases, hospitalized illness accounted for 90 per cent or more of the total family expense for medical care, in two-fifths it accounted for 80 per cent or more and in two-thirds it accounted for 50 per cent or more. Certainly a case of illness requiring hospital treatment increased tremendously the family's medical bill.

Thorough insight into the economic phase of the problem of providing adequate medical attention for all people can come only from scientific study of plentiful and carefully collected data. It has been altogether gratifying that the findings of this investigation and those of others are similar. It is hoped that these pioneer efforts will serve as valuable guides to a more complete understanding of the tremendous number of problems involved.

A Bit of Hospital History

Twenty years ago this month:

Dr. James T. Case declared in the November, 1913, issue of *THE MODERN HOSPITAL* that "while the fluorescent screen method of examination is little appreciated, the roentgenographic or 'plate' method has reached such refinements that it may be considered almost perfect."

G. W. Olson, then superintendent of Swedish Hospital, Minneapolis, stated that "severe and unfair competition of the hospitals maintained by public taxation and the charity hospitals maintained by private benevolence" was making it very difficult for small hospitals to be self-supporting.

The advantages of an "autoambulance" over a horse-drawn vehicle were described by Margaret M. Moore, superintendent, Jackson City Hospital, Jackson, Mich.

Roentgenologic societies in the United States and Germany were declaring that their members were not technicians but medical specialists, entitled to recognition as such.

Dr. W. L. Babcock, Dr. Joseph B. Howland, and Dr. J. N. E. Brown presented a committee report on proposed methods of training hospital administrators. They recommended that physicians wishing to learn administration serve an apprenticeship of three years or longer. Nurse

superintendents, however, should be given a six months' course in practical work, "including several didactic lectures."

Dr. Henry M. Hurd of Baltimore urged that medical teaching should increasingly be done by physicians who devote their whole time to teaching and research and receive adequate salaries for such work.

Dr. Winford Smith pointed out the fallacy of attempting to judge the quality of a hospital administrator's work solely by the per capita cost in his hospital.

Dr. Thomas Howell, then president of the American Hospital Association, announced his intention of appointing a committee to study the preventive work carried on by hospitals and to suggest ways of extending it.

English hospitals reported a falling off of subscriptions and legacies and questioned whether voluntary hospitals could long continue on their present basis.

Dr. R. L. Thompson reported that "pessimism obtains with the utmost freedom with the medical profession everywhere, and, if you talk with a hospital physician either in Berlin or Paris or London, he will probably tell you that the particular system under which he is working is the worst possible, and that everything is rapidly going to the bad, with no chance of salvation in sight."

The Springfield (Mo.) *Republican* gave its editorial blessing to "ragtime" in the hospital in preference to music associated with death or sorrow.

What Others Are Doing

Union Hospitals in Rural Saskatchewan Care for Accident and Maternity Cases

Due to the comparatively long distances between cities in Saskatchewan, small rural hospitals were needed to handle accident and maternity cases. The capital expenditure, however, was often too great for any one community, according to Leonard Shaw, superintendent, Saskatoon City Hospital.

Various groups of rural municipalities accordingly began banding together about 1917 to build hospitals at central points within each group. In 1928 such grouping was legalized by provincial legislation under the Union Hospital Act.

"A union hospital," Mr. Shaw states, "is one that is built, equipped, maintained and managed by the resident ratepayers of an area consisting of rural municipalities or portions of rural municipalities—which correspond roughly to counties in the United States—cooperating with the resident ratepayers of any number of towns or villages in that area. Representatives of any area participating serve on the board of management."

"A levy can be made up to two mills on the dollar of assessment for the building and maintenance of the hospitals. Free treatment is given in these hospitals to resident ratepayers and their immediate dependents. The local government board of Saskatchewan fixes the share of cost to each municipality. A two-thirds vote is required in a municipality for the adoption of the plan."

Hospital Staff Helps to Establish Proper Attitude Toward Necropsies

Each member of the staff, the superintendent and each member of the board of trustees of Mount Sinai Hospital, Chicago, has signed a written permission to have a necropsy performed upon his body in case of death.

While such forms probably do not have legal validity, since a body does not belong to a deceased individual but rather to his kin, they have a strong psychologic effect and are of considerable help in convincing relatives of deceased persons that the hospital is in earnest in its desire to advance medical science through the use of necropsies.

The fact that the superintendent, the

trustees and the medical staff have signed such permission slips tends to counteract in this hospital the fact that in general relatively fewer necropsies are performed on physicians than on other members of the community.

Selective Menus Reduce Food Waste

A new selective menu used in Tompkins Community Memorial Hospital, Ithaca, N. Y., has been found effective in reducing waste as well as in eliminating dissatisfaction with the food served. Aside from deriving a sense of satisfaction from ordering precisely what he wants as though he were in a hotel or restaurant, the patient anticipates the arrival of the selective menus which are made up and mimeographed by the hospital's office force.

On week days the menus are printed



MENU

WEDNESDAY, SEPTEMBER 29, 1933

<p>BREAKFAST</p> <p>Hot House Rubens Rolled Oats New Potatoes Soft Eggs to Shell Cheese - Orange Marmalade Coffee</p>	<p>LUNcheon</p> <p>Roast Chicken Creamed Chicken - Toast Shredded Potato - Shrimp Sauce in Cream Lemon Gelatin - Whipped Cream Milk</p>	<p>Dinner</p> <p>Green of Asparagus Soup Stuffed Chicken - Toast Buttered Peas Celery Hearts Tenderloin - Grilled Potatoes Jugged Hens Dessert Milk</p>
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hope you're feelin' better

on plain sheets of paper. On Sundays, holidays and gala occasions, however, they are dressed up appropriately. Sometimes a ship is sketched with sails unfurled, launched gayly on a penciled sea. A cheery greeting, "Hope You're Feeling Better," appears at one side.

Two small page boys adorn another menu, one standing at the top of the sheet and the other at the bottom. They, too, according to the accompanying legend, "Hope You're Feelin' Better." A third decoration is distinctly Chinese in treatment. Panels at either side bear in Chinese lettering the initials of the hospital, T C M H, and the cheery greeting is similarly printed.

"Patients have expressed their satisfaction with this new system," William E. Proffitt, superintendent, explains, "because they can order what they like. When patients have to take what they do not like the food is either untouched or partially eaten and the edible waste is considerable. With the new selective menu, edible waste has been reduced to a minimum."

Private Rooms Made Three-Bed Units

Typical of the readjustments that are taking place in hospitals throughout the country to meet new demands are recent changes that have been made at the Jewish Hospital, Philadelphia.

This institution, like many others, found many of its private rooms unoccupied, while its less expensive accommodations were sorely overtaxed. In the maternity department, particularly, need was felt for beds for which the patient could pay \$4 or thereabouts. A study of the situation disclosed the fact that in this department were a number of de luxe private rooms sufficiently large to hold three beds. These rooms were fitted up to meet this new type of service and in consequence have become extremely popular.

Saving Soap and Soup

Dr. A. K. Haywood, general superintendent, the Vancouver General Hospital, Vancouver, B. C., writes:

"The city of Vancouver has challenged the hospital to cut down still further this 'deficit' that we have heard so much about, and in our effort to help we even tie the soap to the patients' wash basins and only use it in case of emergency, while the eye dropper has completely replaced the soup ladle of former years."

Probably you can think of one or more practical ways to save time or increase efficiency. The Modern Hospital will welcome your ideas to put before other hospitals

Modern Hospital Serves Connecticut Hill Towns

By RAYMOND P. SLOAN

Associate Editor, The MODERN HOSPITAL

STRATEGICALLY located on a Connecticut hilltop, the Windham Community Memorial Hospital overlooks mile after mile of beautiful New England countryside with little white towns nestled here and there amongst peaceful valleys.

Far below runs the silvery serpentine highway which has brought new life into the community as well as the need for new services which only a modern hospital can render—so far below, however, that the roar of its traffic is heard only as a faint hum. A haven of health is this institution, into whose protecting arms come the sick and maimed from the entire countryside, some 42,000 persons in all, to receive the benefits of modern hospitalization.

Although the hospital happens to be in Williman-

*It is a long step from the service which a courageous group of Sisters of Charity rendered Wil-
limantic, Conn., in a convent converted into a hospital, to the modern Windham Community Memorial Hospital. The progress of hospitalization is evidenced in a trip through this institution for which Crow, Lewis & Wick, architects, New York City, are responsible, with Charles F. Neergaard serving as hospital consultant*

tic, it is essentially an intercommunity development. Each of the neighboring sixteen towns has had a share in its erection, for it was formally opened but a few months ago. Each community, too, will be represented in landscaping the twelve and one-half acres on which it stands. Everyone



is welcome to share in its facilities, irrespective of race, creed or color. It is, therefore, from the standpoint of a strictly intercommunity institution that the building and layout offer particular interest.

First, a brief insight into the hospital's background is significant. For years it seems, the residents of Willimantic and surrounding towns depended upon St. Joseph's Hospital, an institution of about forty adult beds, conducted by a small band of noble women, Sisters of Charity, in a building that was formerly a convent. For twenty-five years and more, they served the public faithfully regardless of race or creed. The community grew steadily, however, with increasing demands for hospitalization, and the point was reached when the unit could not meet the requirements.

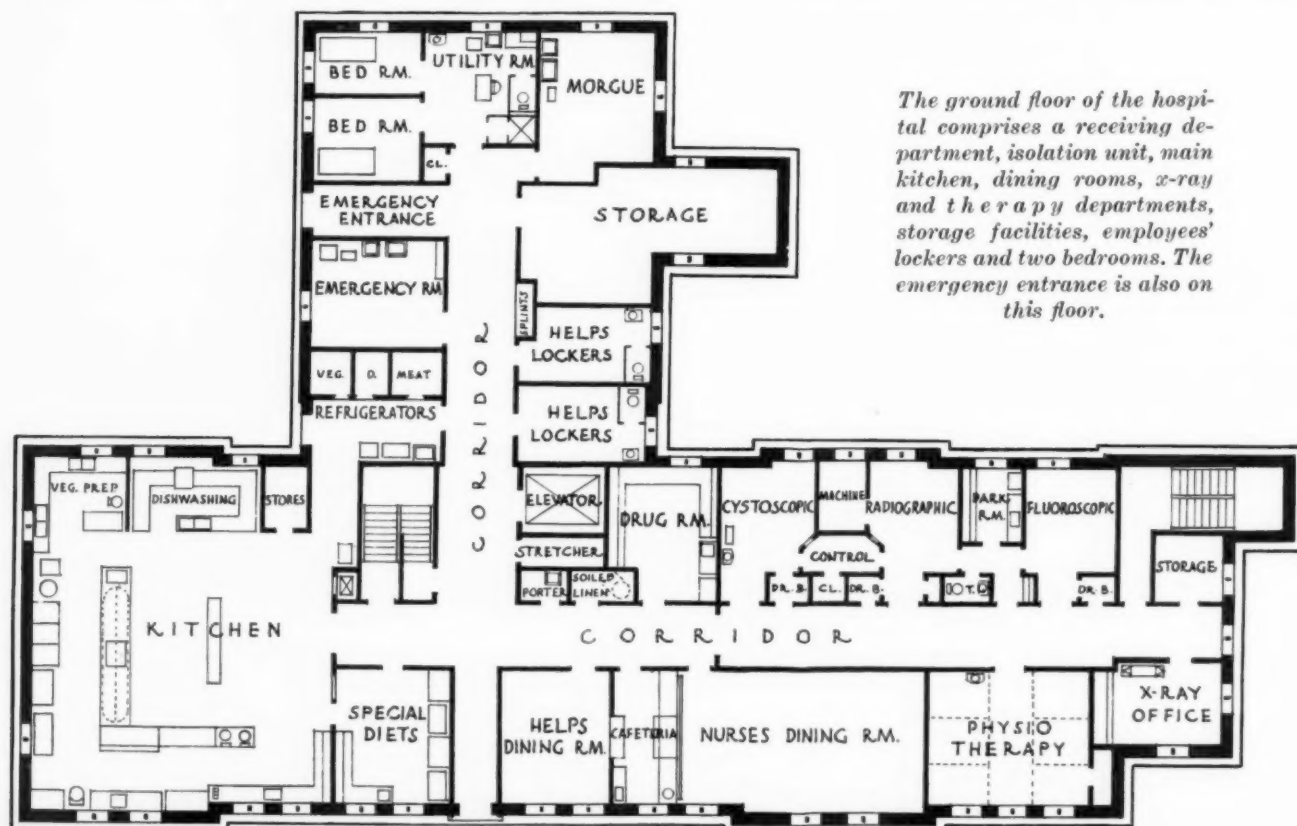
William B. Sweeney, superintendent, describes the next step as follows: "In a campaign organized by the directors of St. Joseph's, our surrounding towns joined in the movement and as the Sisters could no longer carry on, it was decided to make the new hospital an intercommunity project, change the title to correspond and include an enlarged corporate board membership from all the surrounding towns. In December, 1930, the campaign raised in subscriptions over \$500,000 for this splendid unit, 3,700 residents in these towns subscribing to the campaign."

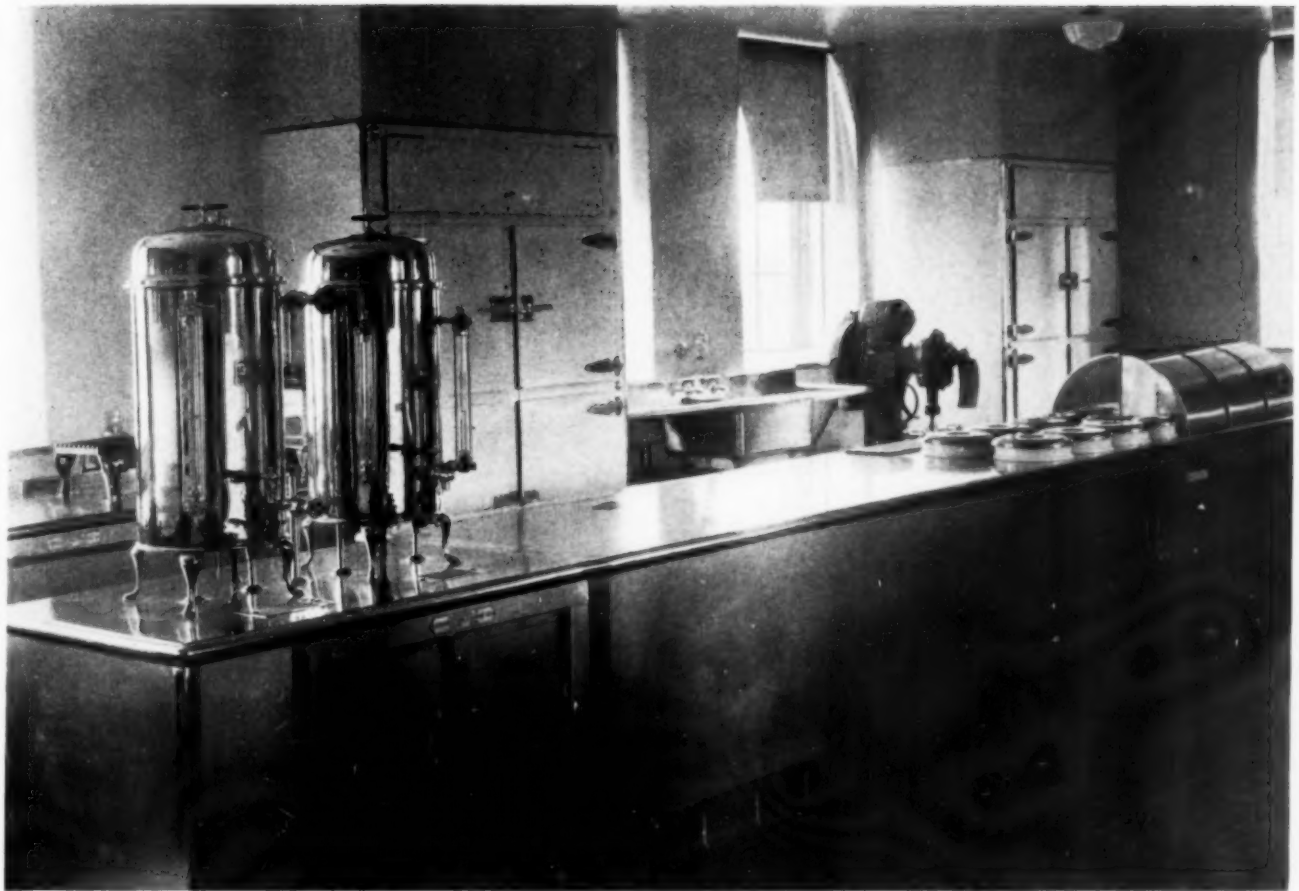
Given twelve and one-half acres of grounds on a well wooded, hilly slope about a mile from the center of the city, what has been done to provide a

modern hospital unit accommodating seventy-three adult beds? The first problem was one of locating the building on the lot. It might be explained that a strip of land approximately 80 feet in width and 250 feet in length connects the east side of the property with the city street. This makes an interesting approach. Being on a hillside, an attractive view was obtained across the valley to the south. For this reason, therefore, and because of the slope, it was deemed advisable to face the building to the south.

The administration and main entrance is in the north wing to the rear, allowing the south front to be uninterrupted by traffic. Thus, the main portion of the building faces toward the south, providing each room with a southern exposure, patients' beds being so placed that a view of the hills across the Willimantic River is always in sight. It is planned eventually to build an attractive terrace to the south of the building for the use of patients. This will be at the ground floor level, whereas the main entrance in the north extension of the building is at the first story level.

The entrance to the grounds is adorned by an attractive gateway through which the visitor drives through the 80-foot right-of-way owned by the hospital. Approximately midway between the entrance and the hospital proper is the service building, containing a heating plant below, with a large well lighted laundry above. On the south front of this service building and forming a part





All kitchen equipment is metal. The food is cooked on large gas ranges and the equipment includes electrical devices, such as huge refrigerating units, automatic dishwashers and automatic mixing machines.

of the structure is the ambulance garage. The hospital incinerator is also in this building. The service delivery to the hospital is at the ground story level on the west side of the north extension of the main building.

With the hospital thus placed clearly in relation to the site, it is possible to give some attention to its general appearance. It is colonial in design, constructed of variegated red brick with limestone trimmings. The main building, 148 feet in length, is three stories in addition to the ground story and basement, the administration wing, already referred to, being of the same height and 50 feet in length. The colonial feeling of the exterior has been deftly carried out in the interior furnishings. The entrance lobby and reception room are distinctly American, thoroughly in keeping with New England tradition.

Before examining carefully the many modern innovations introduced, it will be helpful to place briefly the various departments as they are allocated in the different stories. In the basement, for example, are general storage facilities, refrigerating machinery, ice making plant and electric equipment. The ground floor comprises a receiving department, isolation unit, main kitchen, dining

rooms, x-ray and therapy departments. In the first story are the administration department, three wards of four beds each, four semiprivate units and four private rooms. In fact, the biggest adult ward in the hospital contains no more than four beds.

Every Precaution Taken to Eliminate Noise

The second story contains the maternity section with delivery department and nursery, and in the front portion three four-bed wards, four semiprivate units, three private rooms and two de luxe rooms. The third story is devoted to two major operating rooms in suite, with sterilizing and doctors' washrooms, staff units, nurses' workrooms, one four-bed adult ward, one six-bed children's ward, children's private rooms and eight private rooms including two de luxe units. Large solariums open from the first and second stories and a roof garden with a pergola shelter opens from the third story affording an extensive view of the Connecticut hills.

Summing up, there are twenty-four adult beds to each story, twelve east and west of the main corridor. Thirteen private rooms are provided and four de luxe private rooms. The arrangement is



Solariums furnished with inviting lounge chairs and other homelike touches are at the end of each corridor. From these comfortable resting places, one of which is shown above, an attractive view of the city is obtained. Below is the dining room for nurses and office employees. The pieces of furniture are exact reproductions of antiques.



compact, the patients being close together with no wide intervening spaces for the nurses to travel in performing their duties. Also it is flexible, the convertible rooms and small wards ensuring greater usefulness. For the technically minded, it is significant to note that the area of the operating department amounts to 26.2 square feet per patient, of the kitchen department, 24.2 square feet, of the x-ray department, 11.8 square feet, and of the laundry, 22.2 square feet per patient.

Keeping this general layout in mind, it is now possible to wander through the building leisurely,

and the doors have friction hinges eliminating any possibility of slamming. Rubber bumpers and noiseless roller latches also ensure absolute quiet. There is a "quiet room" in each story where patients may be taken in case of delirium. These rooms are absolutely soundproofed and equipped with shatterproof windows and a special ventilating system.

Perhaps the next outstanding feature is the precaution taken to make the building and its contents as fireproof as possible. No wood has been used except for the doors of patients' rooms and for



The kitchen is equipped for central tray service. At meal time, enclosed unheated trucks that hold twelve trays each are rolled speedily through the building delivering tempting dishes to the patients.

noting here and there particularly interesting features. For example, one of its outstanding characteristics is the complete absence of noise. Soundproofing acoustical treatment has been applied throughout. Every movable piece of furniture and equipment in the building is rubber tired and rubber bumpered, moving on roller bearings. Even the racks for bedpans and other items of equipment in the utility rooms are rubber plated by the new anode plating process, the rubber having a long life and being unaffected by steam. This succeeds in quieting the most disturbing center on the patients' floor. The reading stands over the bed tables are likewise rubberized to prevent noise

easy chairs. Window sashes and frames are steel, and all the furniture is steel with the exception of the chairs referred to. Floors are of terrazzo or of tile, or are covered with battleship linoleum.

A glimpse into the private rooms reveals the care with which every detail has been worked out to ensure the latest refinements in hospital comfort and luxury. Southern exposure with spacious windows affording beautiful views form an effective background. The rooms themselves measure approximately 12 by 17 feet. Furniture includes one or more easy chairs, a dresser, desk and chair, a floor lamp, bedside table, footstool and the latest type of adjustable overbed table for meals which

can also be converted into a reading stand. Incidentally, one of these tables is provided for every bed in the hospital. Each room has a lavatory with hot and cold running water, and all the room floors are covered with brown jaspé linoleum. Near each bed is an electrical outlet for a heating pad or other appliances. Particularly interesting is the floor light built low in the wall and controlled by a switch in the corridor. This lights the room sufficiently at night for a nurse to enter and observe the patient without awakening him. Other lighting in the room is controlled by a switch easily within reach of the patient.

A call button at the head of each bed sounds a buzzer at the nurses' station at the end of the corridor causing the particular room number from which the call was made to be illuminated on a board at the station and also flashes a light in the utility room on that floor in case the nurse on duty is away from the station. The only way in which the call can be shut off is by a concealed switch near the bed.

The latest type of gatch spring beds equipped with spring-air mattresses are supplied throughout, whether in wards, semiprivate or private rooms. Every bed, too, has five-inch rubber tired casters so that it can be easily rolled about. In fact, a patient can be taken anywhere in the hospital without being removed from his bed.

Mention has already been made of the method of hanging the doors of each room on friction hinges

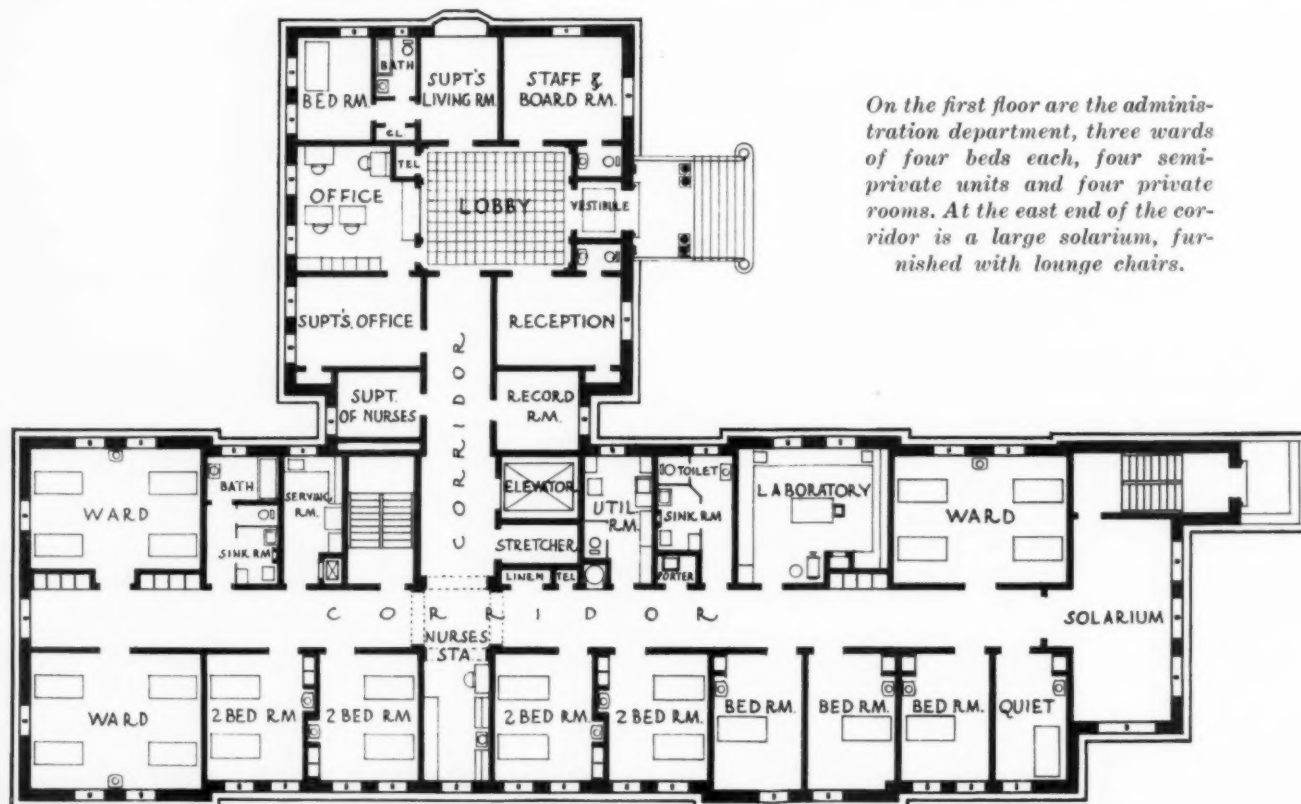
preventing the possibility of slamming and enabling them to be left open to any extent desired without their swinging. The doors are so placed that the patient's privacy is absolutely assured unless they are entirely open.

The de luxe rooms are larger and somewhat more elaborate than the other rooms, and each has its own private bath. Individual color schemes have been worked out with artistic effect, one which is outstanding being known as the man's room, to which a typical masculine atmosphere has been lent through using green and black as the predominating colors.

Roller Curtains Ensure Privacy in Wards

Next comes a brief tour of the wards. It has been already explained that no ward in the building contains more than four beds with the exception of the children's department where there are six. These ward rooms measure 17 by 22 feet, and all are equipped with roller curtains to ensure complete privacy. Their very size precludes all feeling of ward atmosphere. The children's ward is equipped in the same way as the adult sections with the exception that the furniture is smaller and there is space for playing. The nursery unit contains sixteen bassinets, and incubators are also available when needed. The maternity department is fully equipped and contains sterilizing, labor and delivery rooms.

The nurses' station in each story is centrally



On the first floor are the administration department, three wards of four beds each, four semi-private units and four private rooms. At the east end of the corridor is a large solarium, furnished with lounge chairs.

located, providing complete observation of the corridors in all directions.

In line with the growing trend to remove from the operating room its familiar garb of white, and dress it in color, the operating suite at Windham is carried out in two shades of green. The complete operating department comprises besides the two operating rooms, two doctors' scrub rooms, doctors' staff rooms, a utility room, a nurses' rest room, an anesthetizing room and a plaster room. Unit heating and ventilating equipment in the operating room, delivery room and nursery provides a controlled volume of filtered and heated air.

A walk along the main corridors between stops at the various departments gives the visitor an idea of the completeness of the equipment.

To relieve the monotony of long corridors, an easy chair is placed by a window with a table at its side. The windows, too, are draped in gay chintz adding a bright touch of color. A special room is provided adjoining the elevator on each story for wheel chairs and stretchers so that the corridors may be kept clear of such equipment. At the east end of each corridor are solariums furnished with inviting lounge chairs. From these comfortable resting places an attractive view of the city is obtained through large windows.

Well equipped serving rooms are to be found on each floor, with gas plates, a warming oven and refrigeration. These rooms are used for the preparation of in-between meals and are connected by

electric dumb-waiter with the kitchen which is in the basement.

For each twelve beds in the hospital there is a utility room, baths and a sink room. The utility rooms are equipped with built-in dressers, blankets, warmers, gas plates, ice cabinets and movable soiled clothes hampers. Large utensil sterilizers are also found in each. These rooms are done in peach colored ceramic tile and racks for holding utensils are rubber covered to eliminate noise.

Kitchen Is Equipped for Central Tray Service

To facilitate housekeeping, maids are provided with a complete unit in each department. Each one of these has its full quota of equipment, mops, brooms, cloths, and the girl in charge is responsible for it. A sink placed close to the floor makes it easy to fill pails with water without great effort. Every other day all mops are sent to the laundry so that any danger of sour or disagreeable odors is eliminated.

The laboratory must not be passed without just a glimpse to see what has been done. All familiar equipment is included. The counters are acidproof and a built-in chemical hood removes all odors. A large refrigeration unit is also included.

Then there is the x-ray department including the radiographic room, the cystoscopic room, the fluoroscopic room and the developing room. In all, it represents an investment of some \$15,000 devoted solely to the science of x-ray. Across the corridor



The third story is devoted to two major operating rooms, with sterilizing and doctors' washrooms, staff units, nurses' workrooms, one four-bed adult ward, one six-bed children's ward, children's private rooms and eight private rooms.

is an office which the doctors may use in viewing x-ray films. This department has a direct exit to out-of-doors so that persons coming only for x-ray treatment need not enter any other part of the hospital.

The therapy department is in the same section. This room is completely furnished with booths, curtained from one another, to be used for various treatments.

The kitchen, which is equipped for central tray service, is light and airy, and possesses all modern equipment for preparing and serving foods of various kinds. Such ideal working conditions simplify the help problem considerably. This is well illustrated by an incident which Superintendent Sweeney tells of a maid who with the opening of one of the neighboring mills, had a chance to return to her old work at more money than she was getting at the hospital. So happy was she, however, in her environment that she decided to remain in the kitchen of the hospital.

All equipment is metal and the cooking is done on large gas ranges. All manner of electrical devices are likewise included, such as huge refrigerating units, automatic mixing machines and dishwashers. Special departments have been established to care for the different types of food preparation, as, for example, the pastry department, the salad department and the department for steam dishes. Another section is devoted to the preparation of toast and eggs and other breakfast dishes. Adjoining the main kitchen is the diet kitchen for special foods where the hospital dietitian has her office. Connecting with the kitchen and near the service entrance is a large refrigerator storage room where quantities of dairy products, vegetables and meat are stored.

At each meal time, enclosed unheated trucks holding twelve trays each, are speedily rolled throughout the building, delivering tempting trays to the patients, the hot dishes being piping hot and

the salads and other cold plates thoroughly chilled.

What is to all appearances an attractive tea room with tables and chairs and other pieces of furniture, exact reproductions of antiques to be found in the Wadsworth Athenaeum in Hartford, adjoins the kitchen. The furniture is of Essex maple and decorative curtains and drapes adorn the windows. This is the dining room for the nurses and office workers. It is served direct from the kitchen in cafeteria style. A separate room is provided for other employees.

In another section of the ground story is the ambulance entrance with a fully equipped accident room adjoining. Here walls and floors are finished in the same quiet color scheme as the rest of the building. A complete isolation unit for the occasional case of contagious disease is in the same wing as is also the autopsy room and morgue.

Whatever the department may be, the same air of rest and quiet prevails; yet underlying it all a feeling of efficiency dominates which only modern equipment can hope to achieve. The visitor returns to the office, which is courteously attended by girls dressed in green and white, with the impression of having been shown through an attractive country home possessing every accommodation for caring for sick guests. The "hospital air" is notably absent. Mr. Sweeney calls attention to this when he refers to the fact that the help at Windham are supplied with four sets of uniforms, the hospital doing all the laundry. The administration girls, already mentioned, are dressed in green and white, the maids in peach, the same color as the tile used in the utility rooms, the housekeeper in orchid, dietary girls in blue and white, and the tray girls in green.

This hospital, it seems, believes that a well dressed staff adds in no small measure to its general appearance, to say nothing of building morale. It is such ideas, in fact, that are establishing new hospital standards in the hills of Connecticut.

Sixty-Six Hospitals Cut Operating Expenses 13 Per Cent

Nonprofit hospitals in the Carolinas made an enviable record of service in 1932, according to a report from the Duke Endowment. A tabulation of the work of sixty-six general hospitals shows that, in spite of a decrease since 1931 of \$0.45 a day in the average payment made by in-patients and of \$0.02 a visit in the average payment made by out-patients, these hospitals were able to reduce their indebtedness by nearly \$71,000 during 1932. The percentage of free in-patients increased from 54.8 per cent in 1931 to 60.3 per cent in 1932 and the out-patient visits increased by about 4 per cent.

The occupancy rate fell from 53.7 per cent in 1931 to 52.6 per cent in 1932 and the average stay remained stationary at 10.7 days per patient.

The increased burden of free care and the loss in earned income were met by reductions in operating expenses of about 13 per cent. Of a total reduction of \$437,682 in operating expenses, the dietary departments of these sixty-six hospitals were responsible for over one-third. Most of this was due to lower food prices. The cost of food per patient day fell from \$0.82 to \$0.69 while the cost of preparation and service was reduced from \$0.24 to \$0.21.

The contributions of municipalities and religious organizations to the hospitals decreased by \$36,000 but the counties and the Duke Endowment increased their contributions by \$76,000. The total deficits of the 66 hospitals were reduced from \$49,203 in 1931 to \$25,370 in 1932.

A Hospital Administrator Explores the Field of Nursing

By ROBERT E. NEFF

Administrator, University of Iowa Hospitals, Iowa City, Iowa

MANY are the fields and wide the territory that the hospital administrator must explore in order to keep the affairs of his institution in such condition that it may be able to withstand the vicissitudes of the times. Every phase of hospital activity must be investigated with a view of determining the effects of present conditions on the hospital.

Not only during the past two or three years, but for the past decade has the progressive administrator been occupied with research in the nursing field. More has been written and said about nursing service and nursing education in relation to the modern hospital than about any other single phase of hospital activity. Any hospital administrator with a sense of values will grant that nursing service is an indispensable and fundamental part of the hospital machine. There is no phase of hospital activity upon which the personality of the institution depends so much as it does upon the nursing service. The kindness, sympathy, patience and efficiency expressed through nursing determine in the mind of the patient the quality of hospital service.

Motivated by an appreciation of the value of nursing, therefore, the progressive hospital administrator has explored with deep interest the trends in the nursing field in recent years, and is now concerned with the research which it is hoped will in the next few years bring about a more acceptable and happy relationship between the hospital and the field of nursing.

The evolution of nursing has been largely governed by economic conditions. It has been necessary to reckon with economic and material factors which

have had an important bearing upon the production, distribution and consumption of nursing service. We sometimes feel that too much stress has been placed on the economic side. The human factors must not be overlooked and must be constantly stressed, otherwise nursing will cease to be recognized as an art, a science and a laudable profession. Economic considerations are vital, however, and have brought about a determined effort to establish the proper relationship between hospital nursing service and nursing education.

Until recent years little was done in the direction of promoting standards that would attract attention. The nursing group, apparently for want of leadership, made no unified effort to bring about a proper understanding and appreciation of the need for better standards in nursing and nursing education. The hospital accepted the situation and was more or less apathetic so long as no serious economic factors were involved. In most situations the student nurse was exploited and her services utilized to the fullest possible extent without due regard for her education. The advent of the Committee on the Grading of Nursing Schools represented an epochal event in the field of nurs-

"The public pays nothing, or less than nothing directly, for the education of nurses. Students pay for their tuition, not in terms of money, but in terms of service rendered to the hospital—a service which costs the hospital less than that of graduate nurses. In view of these facts, it is not surprising that two correlative results have been achieved: in the first place, the profession has become overcrowded and cannot provide a stable and adequate remuneration to a large proportion of its members, and, in the second place, the twofold immediate economic gain, to the student nurse and to the hospital, has led to an undue multiplication of schools, some of which are mediocre in quality."

From "The Costs of Medical Care."

ing. From the outset the work of this committee struck a responsive chord and stimulated an interest in the hospital and nursing fields that has been far-reaching and momentous in bringing about a better understanding of nursing relationships.

The committee immediately recognized that a knowledge of the economic conditions in the profession was necessary if the study were to be built on a solid foundation. The first problem, therefore, for the committee was to consider the economic phases involving the costs of nursing service, the number of nurses in the field, how long they remained in their particular fields of service, how rapidly new recruits were being added, and whether the demand for graduate nurses was less or greater than the supply. The committee fully realized that to proceed blindly with the national survey without careful and complete knowledge of such fundamental questions would result in a study of little practical value. The work of the committee was one of the finest pieces of investigative effort that has ever been done in the hospital and medical fields. The committee displayed remarkable skill in striking at the heart of the facts involved and presented its findings in a logical, concise, comprehensive and graphic manner. The increasing interest and concern aroused among hospitals in the work of the committee should be gratifying not only to nurses but to all those concerned in the advancement of nursing standards.

Economic Factors Dominate the Situation

We must admit that until recent years nursing education has not been given proper consideration by hospital administrators. The need for nursing service in the hospital rather than adequate education of students has been the basis upon which training schools have operated. Inasmuch as the cost of nursing education has been borne by the hospital, the economic factors involved and the influence of tradition have forced hospitals and training schools to carry on a joint program of nursing education and patient nursing service. Only recently have hospitals awakened to the fact that the school of nursing conducted under a joint program of nursing education and patient nursing service can be a financial liability. Many hospitals during the past two years have discovered that the nursing service in the hospital can be operated at less cost with graduate nurses than with almost total dependence upon student nursing service. This fact is pertinent to our problem and upon it will be based largely the extent to which hospitals are willing to contribute to a program of advancing standards.

The hospital should not exploit the student nurse, nor should the student expect to gain an education

for a profession without cost to herself, either by giving her services, by the payment of fees or by a portion of each. If the hospital assumes the financial responsibility of educating the nurse, then the patient must pay for it. The patient does not care to make a contribution to nursing education through his hospital bill. Student nurses' fees, endowment for training schools, and credit allowance to the training school by the hospital for nursing services performed by students can be adjusted to meet this important economic demand. Too many hospitals today expect the nurse to pay for her education with her services and compel her to spend more time in ward practice than the educational content justifies. Numerous are the procedures that the student continues to carry out long after the educational content has been exhausted, because the hospital depends to a great extent upon the services of the student nurse. Whatever surplus financial returns may be gained by the hospital through the services rendered by student nurses should be returned to the benefit of nursing education. On the other hand, the hospital should not be expected to bear the financial burden incidental to educating the nurse with a corresponding obligation on the patient's purse.

Schools Should Function on an Academic Basis

The day has passed when the hospital can depend entirely upon student nursing service and at the same time provide the student with anything like adequate educational advantages. Nursing education should be considered as a separate problem, and should be placed under educational auspices with hospital affiliations sufficient to provide the required ward practice. Schools of nursing should function on a strictly academic basis, as do schools for other professional groups. Under this plan, ward practice would be limited to the period of time necessary for educational purposes and the academic requirements would receive paramount consideration with less emphasis on the obligation of the school toward the nursing service of the hospital.

The advancement of educational standards has brought about a marked reduction in the number of schools. State boards of nursing are gradually imposing requirements in an effort to produce better standards, with the result that many of the smaller hospitals are now finding it impossible to operate training schools. Some of these institutions feel that the state boards are doing them a grave injustice. It is safe to say that such an attitude on the part of the hospital is an indication that it has been exploiting the student nurse and objects to dispensing with its training school for economic reasons and has, for the most part, lost sight of its

obligation toward the education of the nurse. The need of the hospital for cheap labor is no legitimate reason for maintaining a school.

The disparity existing in the qualifications of the many training schools today is notable, and yet they all train the student and place upon her the same stamp, "graduate nurse." How can the innocent members of the public, ignorant regarding matters relating to nursing education, differentiate between the well trained and the inadequately trained nurse? They cannot for the most part. I believe the time is not far distant when educational requirements will be imposed upon schools to an extent and in a way that will compel compliance with better regulated methods in nursing education. Schools unable to meet the requirements will find themselves in a situation similar to that of scores of medical schools fifteen or twenty years ago when standards in medical education began to advance. Hundreds of smaller schools will be eliminated with a marked reduction in the twenty thousand or so graduate nurses now produced each year.

All are familiar with the development of medical education with its far-reaching and significant changes in the character and number of medical schools, as well as the reduction in the number of graduates. The development in nursing education will, in all probability, result in a similar situation among training schools. Fewer schools with higher standards will mean fewer but better nurses. With fewer hospitals operating schools, with all of them fully approved and providing adequate laboratory facilities for training nurses, we may expect better conditions for student education.

Will a Shortage of Graduate Nurses Occur?

A rating or a standardizing body, national in scope, to survey and set up minimum standards would lend great impetus to the program of better practices in nursing education. Such a body if recognized by the field at large, would function similarly to the American College of Surgeons in the hospital field and would set up and compel observance of high grade nursing school standards. Schools should be accredited annually and a list published, thereby promoting observance as a matter of pride on the part of the various schools. Let us hope that such a rating body will eventually be the outgrowth of the grading committee's work.

Much concern has been expressed by the nursing organizations regarding the overproduction of nurses. With an educational system based on proper standards in normal times we shall not have to depend upon artificial methods in dealing with the oversupply of nurses. In fact one of the problems looming up before the hospital adminis-

trators as they explore the future and note the progress in nursing education, is the possible shortage of graduate nurses. As hospitals depend less upon student nursing service, they must substitute graduate nursing service. A greater demand for graduate nurses will thus be created with a corresponding reduction of their present widespread unemployment. This fact together with the reduction predicted in the number of nurses produced, creates concern in the mind of the hospital administrator.

Some Leading Questions

We must all admit that the present overproduction of nurses is distressing. Economic conditions have made a damaging contribution to an already serious problem. The supply of nurses has increased more rapidly than the general population. According to Dr. May Ayres Burgess there was less than one graduate nurse in active practice to every six thousand people in the United States in 1900 and today the grading committee reports that there is more than one graduate nurse in active practice to every six hundred people.

These facts lead us to ask and answer several questions: (1) Are there too many schools? Yes. (2) Should entrance requirements be raised? Yes. (3) Would raising entrance requirements actually mean fewer students? Yes. (4) Would raising standards in nursing eliminate many schools? Yes. (5) Are there now enough graduate nurses to take care of the sick in hospitals and should greater dependence be placed upon graduate service in nursing the patient? Yes, at the present time. (6) Would hospitals go out of business if they discontinued their schools? Not to any great extent. (7) Do hospitals run nursing schools to save money? Yes, many of them think so. In 1931, 82 per cent said "Yes," and 18 per cent said "No," according to the grading committee. (8) Can schools be conducted along strictly academic lines? Yes.

These questions are pertinent and form the chief basis for the consideration of the production, distribution and consumption of nursing service as well as the advancement of educational standards.

Have hospitals taken unfair advantage of the unemployment situation among nurses? No doubt many have, while others, owing to their distressing economic situation, could do no more than offer subnormal salaries to nurses who were unemployed, in distress and ready to accept work for almost any salary or even for shelter and food. We question seriously the ethics of some hospitals, however, which under the guise of offering postgraduate courses, have brought in graduate nurses on a salary of \$25 or so a month, plus maintenance, for

no other purpose than to fill gaps in the nursing service. Such crafty devices for obtaining nursing service bear a definite resemblance to sweat shop methods. The fact that a postgraduate course makes such a liberal allowance places the project in a suspicious light.

Some hospitals in university centers have during the depression established mutually helpful plans by providing part-time employment to graduate nurses with complete maintenance, while they were attending university courses, thereby enabling these young women to pursue courses leading to baccalaureate degrees. One university hospital budget provides for the employment of thirty graduate nurses under such a plan. These nurses fill in the relief hours at weekends and at the same time are able to carry a full program of university work.

Should we today discourage the young woman determined upon a nursing course? Are universities saying to the public that there are too many engineers, too many teachers, too many lawyers, therefore, they advise prospective students to defer entering college? No, they are putting forth every effort to encourage young men and women to prepare themselves for professions. Why should anyone become intellectually idle in these times of economic stress? It is believed that normal times will restore the nursing profession to a sound economic basis. The university should develop its courses in a manner that will encourage the enrollment of nursing students interested in obtaining an academic degree. Combination courses are being developed with the result that enrollments are growing in courses that provide the baccalaureate degree. In some universities a course has been developed that enables the student nurse to obtain both the graduate nurse and bachelor of science degrees in four calendar years. It is gratifying to note the growing demand for such courses.

Several Types of Nurses Are Needed

While the university and college hospital does not pretend to assume exclusive responsibility for educating the nurse, nevertheless, the university should become the backbone of the nursing education system just as of other educational systems. Supplementing the nursing educational system we should have those larger hospitals whose facilities and qualifications would meet approval. The university has an obligation to educate nurses. We must look to the universities to promote the ideals of nursing education and to sponsor every effort that contributes to the better education of nurses. Nursing will attract students of the professional type much more when it can be demonstrated that a sound educational background prevails in the education of the nurse.

The nursing educational field has an obligation to train several types of nurses. What the doctor wants primarily is so-called bedside nurses. Specialists in nursing must also be trained for positions in obstetric, orthopedic, operating room, isolation and other specialized services. Nurses must also be prepared for administrative, educational and public health positions. The basic undergraduate course should make no pretense of training a nurse for these various fields. Postgraduate courses, preferably under university auspices, should train for the specialties and for administrative and educational positions. One of the greatest needs today in the estimation of the hospital administrator is for administrative and specialized nurses. Facilities for meeting these important demands must be developed.

The Nursing Schools of the Future

Are we too idealistic in our nursing educational standards? Are we building air castles of elaborate educational proportions? I would say no. We are endeavoring only to bring about the advances that progress demands in a profession that is vital to human welfare. The hospital administrator is fully aware of the value of proper nursing standards even though his institution may not be responsible for a school. He must have well trained nurses and that fact alone should impel him to interest himself in nursing progress. The hospital administrator recognizes the hospital as an exclusive facility for laboratory teaching in nursing education, and there exists, especially in the larger hospitals, an obligation to maintain such nursing standards as will command the respect of nursing educational agencies seeking affiliation. The hospital administrator in the future will have no direct responsibility for training schools. The education of the nurse will be handled by the educational agencies with the universities assuming the major responsibility. Schools will be conducted as educational enterprises without regard to hospital administrative matters. The concern of the administrator will then be in offering through affiliation ward practice facilities of the highest type.

While the present economic situation may retard and in many ways forestall our moves toward the advancement of nursing standards, let us not compromise our nursing standards to a damaging degree. Distinct and noteworthy progress has been made in the last decade and we all take pride as we look into the future and prophesy a development in the nursing field that will bring benefit not only to the nursing field but to the doctor, the hospital and the general public.¹

¹Read at the convention of the American Hospital Association, Milwaukee.

cussed the matter and finally I advised that he reopen the abdomen so that I could personally continue the search. This was done but not a trace of the sponge could be found. The abdomen was again closed and the patient recovered.

There seemed to be but two possible explanations as to what had become of the sponge. One was that some visitor had picked it up off the floor for the purpose of seeing how many layers it contained. It seemed more likely, however, that some nurse had stepped on the sponge and had carried it downstairs in the hollow of her shoe.

To obviate a recurrence of this incident we then introduced at one point in the margin of each sponge a piece of metal. This piece of metal is so small that its presence is never noticed in handling the sponge but under the x-ray it is seen instantly. Not only is the presence of the sponge established but also its location is shown so that its removal is greatly simplified. The wound is simply covered, the picture is taken and the problem is solved.

Only once has it been necessary to resort to x-ray to find a sponge. In that case a cesarean section had been made and a sponge had accidentally fallen into the open uterus and the uterine incision had been closed. Just as the peritoneum was being brought together the announcement was made that a sponge was missing. The x-ray picture revealed it in a moment and at the completion of the operation it was readily removed through the vagina.

This method has been used in Grant Hospital for more than thirty-three years, in many thousands of cases, without a single mishap. The sponges are made of six thicknesses of the usual gauze. While the size and shape of sponges are determined by the wish of the operator, this method of securing a correct count and of determining the presence and location of a sponge which may have been left is universally applicable.

The accurate count of sponges is in the end the safest and best protection. The first count, by which anyone in the room can actually see at a glance that the eleven sponges are present, is as sure as an adding machine, while the final count, made by two nurses and with no haste, should be absolutely reliable.

Another method that doubtless prevents the loss of the sponge is that by which one long sponge is used. One end of the sponge is fastened to a bag that is in turn fastened to the table. This procedure is awkward, however, and the presence of such a sponge, drabbed back and forth during the necessary manipulations, must inevitably increase the danger of infection. Other objections are evident to one who watches the procedure.

The attempt to obviate the accident of leaving a sponge by attaching a tape to each sponge, with an iron ring or a hemostat at the end of the tape, I do not like. The history of overlooked sponges includes more than one case in which sponge, tape and hemostat have all been left in the abdomen. Furthermore, these tapes are apt to get snarled and occasionally a loop of bowel is caught in the snarl. As in the case of the single long sponge, the drabbling of the tapes over the edge of the wound necessarily increases the danger of infection. The presence of the tapes necessitates a somewhat longer incision to secure the necessary space for manipulation.

The most reasonable and natural method has always seemed to be the ordinary one by which individual sponges are used. The only difficulty is obtaining absolute accuracy in the count of such sponges. Accidents probably result more frequently from a miscount of sponges at the beginning of the operation, or to the introduction of additional uncounted sponges during the operation, than from a miscount of sponges at the close.

The Hospital and the Radiologist

In endeavoring to solve the complicated problem of the status of the radiologist in hospital practice so as to preserve the best interests of patients, the hospital and the radiologist, the Philadelphia Roentgen Ray Society has adopted the following resolutions:

"1. Proper recognition of the rank of the radiologist in the organization of the hospital medical staff or faculty is necessary. The radiologist should be on a par with his colleagues in medicine, surgery and other specialties.

"2. Every x-ray examination is a medical consultation. The fee paid by the patient is to recompense the radiologist for his expert opinion, supervision and consultation with the clinician, and to defray the costs of the technical procedures. Any arrangements between the radiologist and the hospital whereby the hospital makes a profit from the services of its radiologist constitutes exploitation.

"3. The radiologist should collect his own private fees as other clinical specialists collect theirs.

"4. The hospital must be reimbursed for the expenses incurred in the examinations and treatments of private patients. The most feasible method of doing this, with fairness to both the hospital and radiologist, appears to be some division of the total cost of operating the department between the radiologist and the hospital, in proportion to the relative number of private and nonprivate patients.

"5. Where the entire medical and surgical staffs of the hospital are on salaries, it is obvious that the radiologist must also be on a salary.

"6. In those hospitals where the volume of nonprivate practice is great and there is insufficient private practice to attract a competent radiologist, the best interests of the patient may necessitate the granting of some payment to the radiologist for his work upon nonprivate patients."

How a Small Rural Hospital Supplies Efficient Medical Care

The most pronounced defect in American medical service is the uneven distribution of medical personnel between urban and rural sections. Doctors are crowded into the cities, one to 500 people. The congestion in cities is naturally associated with a scarcity of physicians in rural areas in which some 40,000,000 people still live.

HIGH up in the Appalachian Mountains of western North Carolina is Banner Elk, the home of the Edgar Tufts Memorial Association. Situated in Avery County, with a population of 12,000, Banner Elk is a little town of 300 people. Here are found the three interests of the Edgar Tufts Memorial Association—Grace Hospital, Lees-McRae College and Grandfather Orphanage.

These associated services—hospital, school and home for dependent children—came into existence thirty-six years ago when Edgar Tufts, a young theology student, went to the remote and then inaccessible mountain district of western North Carolina to do missionary work. After his graduation at the Union Theological Seminary, Richmond, Va., Mr. Tufts returned to Banner Elk, built a small chapel and began his permanent work.

Shortly thereafter he founded a school for girls and in 1900 he built a dormitory for twelve boarding students. This institution has since developed into Lees-McRae College, a junior college with an enrollment of 225 students. In 1914 Mr. Tufts procured an old farm house and engaged a man and his wife to take care of a small number of dependent mountain children. From this small beginning grew Grandfather Orphanage which now consists of several buildings and provides for the needs of eighty-five children.

By W. C. TATE, M.D.

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The great need for medical care, not only for the children in school but for the people of the community, next claimed Mr. Tufts' attention. In 1907 a fourteen-room wooden building was erected to serve as office and home for a medical missionary. There was sufficient additional room to care for a few seriously ill patients. A medical missionary who had returned from China was employed and served as the local physician until 1910, when the present physician, Dr. W. C. Tate, accepted the responsibility for continuing the work.

Shortly after Doctor Tate began work at Banner Elk, additional funds were secured and an operating room and a laboratory were added to the fourteen-room building being used as office, home and hospital. Doctor Tate cared for the few seriously



The first home of Grace Hospital, erected in 1907, served also as a home and office for a medical missionary.

ill patients in the hospital, using members of the patients' families to do the nursing. He also looked after the health of the students in the school and carried on an extensive practice in the community, making most of his calls on horseback.

As the number of patients increased, a graduate nurse was added and an anesthetist and assistant

were secured from nearby villages. Six beds in the combination home, office and hospital were used by patients in 1920. The following year a friend contributed funds for the construction of a home for Doctor Tate. In 1922 Mrs. Helen Hartley Jenkins gave sufficient funds to construct a modern fireproof hospital with a capacity of twenty-five beds. The old building was torn down and the new hospital, occupying its site, was opened in 1924. For about a year there was sufficient room in the new building to house the nurses but by 1925 it became necessary to move them into a rented building near the hospital. Another physician, Dr. R. H. Hardin, joined the staff in 1925. Demands on

riod, 1928 to 1932, inclusive, give a general idea of the scope and character of work performed at Grace Hospital: patients treated, 4,319; full-pay patients, 1,420; part-pay patients, 593; free patients, 2,306; days of care, 49,357; free days of care, 31,003; percentage of free work, 62.8; average cost per patient per day, \$1.70; major operations, 803—deaths, 27, fatality rate, 3.36; abdominal sections, 568—deaths, 10, fatality rate, 1.76. An out-patient service with an average daily attendance of twenty patients per day is also maintained.

The exceptionally low per patient per day cost of \$1.70, and the surgical fatality rate deserve brief



The present hospital building was erected in 1931. It is of fireproof construction and has a capacity of sixty beds.

the hospital had so increased by 1931 that the building was no longer adequate and a new fireproof stone structure with a capacity of sixty beds was provided at a cost, including land and equipment, of approximately \$100,000. Doctor Tate and Doctor Hardin had been compelled in 1927, due to the large number of patients in the hospital and the increasing demands on their time, to discontinue general practice in the community and to devote their entire time to the in-patient and out-patient services of the hospital.

The present personnel of the hospital consists of two regular full-time physicians, one part-time eye, ear, nose and throat specialist, a business manager, two stenographers who also serve as bookkeeper and record clerk, a technician, a dietitian, a superintendent of nurses, a night supervisor, an operating room supervisor, a full-time instructor of nurses, twenty student nurses, an orderly, two cooks and three laundresses.

The following figures covering the five-year pe-

comment. With respect to the per day cost, it should be remembered that the Edgar Tufts Memorial Association is a missionary enterprise under the auspices of the Presbyterian Church and that the employees of the hospital, orphanage and school are content with financial rewards that could not sustain persons of weaker faith. The hospital pays nothing to its two physicians, Doctor Tate and Doctor Hardin. They care for the 62.8 per cent charity patients without compensation, receiving their income from the 37.2 per cent who are able to pay. However, a considerable proportion of the patients who are in more comfortable circumstances and can pay their hospital charges have nothing left with which to pay their medical attendant.

The general surgical fatality rate for major surgery, 3.36, compares favorably with the fatality rate, 5.15, of major operations in fifty-eight general hospitals caring for white and Negro patients in North and South Carolina for 1932. Moreover,

the five-year fatality rate for abdominal sections, 1.76, compares favorably with the fatality rate, 4.88, for abdominal sections in fifty-eight hospitals in North and South Carolina caring for white and Negro patients. This comparative showing is even better when it is remembered that Grace Hospital is situated in a mountainous district where transportation is comparatively difficult, where doctors are few and where patients are seen infrequently and late in their illnesses and are often brought to the hospital for treatment when their diseases are far advanced.

The story of Grace Hospital teaches two lessons, one general and one special, in a convincing manner. One is a lesson of a man that came to minister rather than to be ministered unto. The young theology student who sought out a remote and inaccessible mountain section where a real need for service existed could not possibly have realized, even with all of his faith, that he was building a college, an orphanage and a hospital. These three institutions are but the persistent shadow of a great life. Mr. Tufts is survived by a son, Edgar H. Tufts, who inherits his father's courage, vision and high ideals of service and carries on the great work begun by his father.

One Doctor to 2,000 Persons!

The special lesson that Grace Hospital teaches is the part that can be played by the small rural hospital in solving the problem of medical care. Grace Hospital serves a mountain section of 1,000 square miles with a population of approximately 60,000 people. Serving the people living in that area are thirty-one physicians. Seventeen of the thirty-one are past fifty years of age and seven of the seventeen are past sixty. The hospital nearest to Banner Elk is thirty miles away, privately owned and maintained. Last year it averaged, according to the American Medical Association, only three patients a day.

There are many rural areas, like the Banner Elk region, where the ratio is one doctor to 2,000 people. In seven North Carolina counties there are more than 3,000 people for each physician, while one county has more than 4,000 people per physician. The dislocation of medical personnel is not only quantitative but qualitative, and that is the more serious aspect of the problem. Not only are physicians concentrating in abnormal numbers in urban sections, but the younger, better trained physicians are avoiding rural sections and increasing the congested medical personnel of the city.

The rural hospital is the specific for this abnormal condition for the following reasons:

1. A local hospital tremendously improves the work of the professional group already in the field.

It brings the doctors into professional association, into dynamic contact with one another, in an exchange of professional opinions as in the work of the professional staff of hospitals. It affords these doctors clinical and laboratory facilities, limited x-ray assistance, obstetrics, operating facilities for emergency cases and for ordinary surgery where a local man is qualified.

2. A local hospital retains in the more remote section where he is greatly needed the ambitious, progressive type of physician who would otherwise leave the rural district for a community in which he could practice his art in harmony with prevailing professional ideals.

3. A local hospital enables a few men to do the work of several times their number and to do it much better. With the time consuming factor of transportation to scattered homes over mountain roads eliminated, two physicians assisted by a technician, a dietitian, a historian and twenty nurses are able to do a large amount of service and to do it far better than it could be done by eight or ten physicians without a hospital. This is well illustrated at Grace Hospital.

4. A local hospital makes it possible for the young man with modern training to go into a rural section where there are 2,000 instead of 500 people for him to serve and to carry to them the ideals of service and professional efficiency imparted to him in modern medical training.

The modern practice of medicine is a tripod. The three legs are medical personnel, facilities and skilled technical assistants and nurses. When any one of the three legs is broken the tripod falls and that which rests upon it, the health of the community, suffers.

Last Year's Infant Mortality Rate Lowest in U. S. History

The infant mortality rate of the 913 cities in the birth registration area of the United States last year reached the lowest point ever recorded. The rate was 56.8 deaths per 1,000 live births. The lowest previous rate was 61.2 in 1931. The 1932 rate is not only 4.4 lower than the rate for the previous year, but it is only one-half the rate of twenty years ago. These encouraging figures are presented in "Statistical Report of Infant Mortality for 1933," published by the American Child Health Association, New York City.

The lowest rate in cities of over 250,000 population was recorded for Portland, Ore., with a rate of 34. St. Paul, Minn., was next with a rate of 39, followed by San Francisco and Oakland, Calif., with rates of 40. In cities with populations of 100,000 to 250,000, Long Beach, Calif., led with a rate of 36, Grand Rapids, Mich., was second with 37 and Spokane, Wash., third, with 40. Cleveland Heights, Ohio, easily led the cities of 50,000 to 100,000 with a rate of zero although this is probably misleading and due to the fact that no correction was made for the residence factor.

Someone Has Asked—

Should the Hospital Refuse Admission to Venereal Disease Patients Who Cannot Pay?

Many private institutions have found it necessary to limit the admission of nonemergency ward cases to those who can pay the full ward rate. Other hospitals follow a slightly more lenient plan in that semiemergent or even elective cases are admitted even though only a part of the fee can be met. No doubt such a plan is justifiable in chronic medical and surgical conditions. It is long past time for the public to appreciate that if hospitals are to exist ward charges must be paid.

A slightly different aspect of the problem appears, however, when admission of venereal disease cases is considered. Here it is the hospital's duty not only to treat an ailing person but also to perform an important public health function. The isolation and the rendering noninfectious of such patients is of the greatest importance to all members of the community. In some cities venereal disease is quarantinable and treatment is obligatory.

The hospital, therefore, has no right to refuse admission of a patient suffering with this ailment even though he or she is unable to pay for institutional care. The same opinion applies to children suffering with similar infectious conditions and a broader application of this principle would include perhaps transmissible respiratory and dermatologic diseases.

Should the Intern Examine All Patients Reporting to the Accident Ward?

This question was asked by a superintendent in whose institution members of the intern staff have objected to night accident ward calls for non-emergency cases. This is a practical query since the hospital is often judged by the service rendered by its accident ward. The public expects twenty-four-hour promptness from this department.

That patients often deliberately evade payment of a physician's fee by patronizing the institutional accident ward is no doubt true. That trivial nonsurgical conditions are often seen there is equally certain. However, no one but a physician should be allowed

to decide either the nature or the urgency of trauma or disease. It is an unwise practice to allow nurses to turn away any patient as medically unimportant even though he asks for aid in the small hours of the night. Diagnosing and prescribing by telephone are just as hazardous. Even though the symptoms appear to the nurse as trivial, a serious disease may exist and may endanger the life of the patient.

It is exasperating to the intern to be aroused from much needed sleep to treat a slight bodily contusion. And yet, cardiac disease often masks under the guise of indigestion and tetanus organisms may gain entrance to the tissues through a slight puncture wound. The only safe method to pursue, therefore, is to have a physician examine all patients applying to the institutional accident ward, irrespective of the time of day or night at which they come.

How May the Accuracy of Death Certificates Be Assured?

Death certificates of hospital patients are often woefully incomplete. Too frequently such facts as the name of the hospital in which the patient was treated, his home address, important data as to the cause of death and answers to questions regarding operations and necropsies are conspicuously absent in this document. To ensure a complete individual history a printed card asking for personal information should be filled out when each patient is admitted.

The death certificate should be completely filled out by hospital authorities before the undertaker arrives. It is undoubtedly better for the hospital to supply all such data. The undertaker should write on this document only his name and the date and place of burial. No blank death certificates should be used except those kept in the office of the hospital. A clerk should inscribe upon all blank certificates the name of the city and the name and location of the hospital.

This practice will ensure the recording of accurate information and will save time when certificates are needed in a hurry.

The cause of death must be accurately and completely recorded on the death certificate and should correspond with the hospital records. Inaccuracies may later entail litigation. The nomenclature used in describing the fatal disease and the complications present should agree with the nomenclature of "The International Causes of Death." If an operation was performed, its date and the disease or condition for which the operation was done must be recorded. The question relating to a necropsy must always be answered. The importance of death certificates in court cases makes it imperative that the superintendent and staff cooperate in bringing about accuracy and completeness in their execution.

What Should Be the Authority of the Institutional Surveyor in Administrative Matters?

When hospital trustees find themselves in financial difficulties they commonly institute a study of business and administrative methods. An experienced director of such a survey is first secured and the policies under which he will function are then decided upon. This question, submitted by a New England hospital executive, is timely and of importance to every hospital superintendent.

If the surveyor is tactful and constructive he will at once enlist the cooperation of all members of the hospital personnel. He will not permit himself to become more friendly with one person than with another. He will maintain a judicial attitude in considering all problems presented to him. He will appreciate the fact that disturbance of institutional morale can do more damage than the good accomplished by effective reorganization methods can counterbalance. A surveyor should be given no administrative authority. Any changes he suggests should be considered by the board of trustees and, if approved, orders incident to their enactment should be issued by the superintendent. No more destructive influence can enter a hospital than that of a tactless and officious hospital surveyor.

If you have any questions to ask, the editor will be glad to discuss these in a forthcoming issue

Study of Metabolic Disorders Is a Proper Hospital Function*

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and

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METABOLIC studies in the past have been concerned with diabetes, gout and obesity. The advance in medicine and in the science of chemistry has opened entirely new fields and has broadened the scope of metabolism to a degree that is little appreciated even by the general medical profession. Recent studies of liver metabolism and new information concerning the various functions of the kidney are illustrations in point.

The rapid advance of endocrinology—the study of the functions of the glands of internal secretion such as the thyroid, parathyroid, adrenal, pituitary body and pancreas—has opened a still wider field for laboratory and clinical studies dealing directly with metabolism. Fifteen years ago endocrinology was regarded as “the field of medical romance”; today skepticism has given way before the advances that have been made in the study of the functions of the glands of internal secretion.

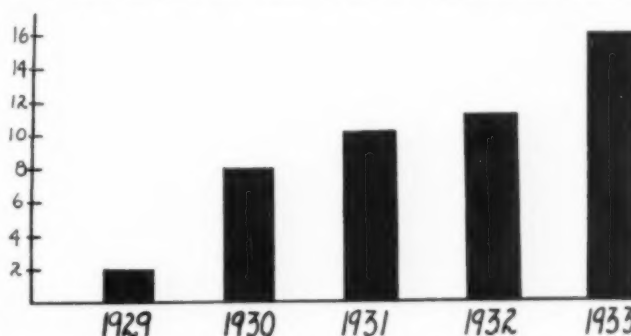
Hypothyroidism Frequently Is Not Recognized

The importance of endocrinology in metabolism is still little appreciated even by doctors themselves. It is a field in which the treatment of disease is important but in which the prevention of various physical and even mental disturbances depends upon early recognition of metabolic imbalance and the use of substitution therapy with products of the glands of internal secretion. That the scope of the metabolic field having to do with endocrinology may be further emphasized, a brief outline of some of these syndromes follows.

Hypothyroidism, occurring in children and in adults, is a prevalent disorder. It is responsible for a wide symptomatology and all too frequently it is not recognized. Its recognition is particularly important because substitution therapy with thyroid extract results in the loss of disturbing symptoms. In children hypothyroidism too often has been

taken to mean a sluggish mentality and a fat body. It is not generally recognized that many hypothyroid children are markedly underweight and that the queer or abnormal mental reactions of these patients, as well as the malnutrition, are the result of lessened activity of the thyroid gland. These children respond satisfactorily when thyroid extract is given in proper dosage.

In the adult, hypothyroidism expresses itself in a variety of ways. Physical changes take place in the body; the skin and the hair become dry and the nails become brittle. The central nervous system is often affected to a remarkable degree. There may be a loss of mental acuity and even the development of psychoses. The heart undergoes changes. In extreme instances there is an enlargement of this organ and its rate is slow. Gastro-intestinal



This shows the number of x-ray determinations of bone age per 100 cases for the years 1929-33. The large increase in this work after the staff realized its value is evident.

changes are often marked and a variety of symptoms are dependent thereupon.

Excessive menstrual flowing at period time in women is frequently due to a lessened thyroid action. Many operations have been performed to stop this excessive flow. A metabolic study, resulting in the finding of a lessened thyroid function and followed by a proper exhibition of thyroid extract, will in the future save unnecessary operations.

These changes in the adult may be suspected upon taking the history, they may be verified by the clin-

*This article is one of the Hospital and the Medical Staff series, designed to ensure better team work in the hospital through a fuller understanding of the interrelated problems of the medical staff and the administration. The first article of the series appeared in the January issue.

ical examination and they may be proved by determinations of the metabolic rate. Happily, this wide group of symptoms affecting so many organs may be entirely relieved by proper administration of thyroid extract.

The advance of knowledge of the pituitary gland and of its hormones is equally striking. To date, eleven hormones are thought to have been isolated from this small gland at the base of the brain. The growth hormone, isolated by Dr. Herbert Evans, is an important one since it has been demonstrated that the growth of the body is actually controlled by a chemical substance elaborated by this gland.

An equally important sex hormone comes from the anterior portion, or lobe, of the pituitary gland. A pressor substance, called pituitrin, has been isolated from the posterior lobe. Its use in surgery and obstetrics is already widespread. Intermedin has recently been isolated from the middle portion of the pituitary body. It is concerned with diabetes insipidus, a condition in which large amounts of sugar free urine are passed each twenty-four hours. The exhibition of this remedy is said to have lessened materially this distressing symptom.

Fröhlich's Syndrome

The anterior lobe of the pituitary gland, when it fails to function properly, gives out lessened amounts of the growth hormone or of the sex hormone, or both, and the result is a definite clinical disturbance. Adiposogenital pituitarism—Fröhlich's syndrome—is a condition in which there is a marked increase in adipose tissue and a failure of development of the sex glands and functions. This condition is definitely related to the failure of the pituitary gland to function properly. Formerly little could be done for the unfortunate adult who developed this picture. With present knowledge of this disease, it may be suspected in growing children after metabolic study, and the use of the new hormones that have recently been isolated may offer much in the treatment of this distressing condition.

There are still other associated glandular disturbances, or biglandular disturbances, for example, thyropituitarism, or the reverse, pituitarythyroidism. These conditions may be evidenced in childhood and proper treatment during the adolescent period may make a normal individual of one who without treatment would always have been handicapped.

Disturbances of the function of the ovary and of the testis—gonadal disease—are still a complicated problem. Primary hypogonadism, when discovered in the adolescent, may now be helped remarkably by the use of pituitary and sex hormones. Re-

cent isolation of two hormones from the female sex organ, the ovary, has been of definite value in the treatment of distressing menstrual disturbances.

Parathyroid disorders in the adolescent and the adult are receiving attention as the result of the isolation of the parathyroid hormone by Collip. Tetany is a disorder dependent in some instances upon a lessened output of the parathyroid hormone from these tiny glands that lie on the posterior wall of the thyroid gland. That the metabolic problem of tetany is widespread may be realized when one considers that it may be a postoperative disorder following accidental surgical removal of these glands; that it may be gastro-intestinal in origin, or that it may have followed an obstruction of the pylorus, with dilatation of the stomach. Repeated vomiting, with loss of chloride in the vomited material, results in overalkalinization and causes severe tetany.

Endocrine disorders in adults are important since the only help for them lies in proper treatment. For many of these persons permanent harm has been done and as yet little can be offered in the way of cure. In children, the detection of endocrine disorders offers the opportunity of preventing changes that would otherwise occur.

In this discussion, mention only is made of diabetes mellitus, gout, chronic nephritis, high blood pressure, underweight and overweight. The latter, however, should be emphasized because of its importance in relation to the span of life. Overweight individuals are shorter lived than their brothers and sisters of normal weight. A large number of overweight individuals will develop high blood pressure apparently as the result of their overweight and a large number will develop diabetes mellitus for the same reason. This overweight group is particularly amenable to treatment. Hence this special notation.

Scope of Metabolic Field Is Wide

The metabolic disturbance, hyperinsulinism, is a new medical syndrome. This condition is characterized clinically by spells that are often mistaken for epilepsy. Marked weakness frequently occurs; the patient breaks out in a cold perspiration; the pulse becomes rapid; there may be loss of consciousness. It has only recently been demonstrated that many of these attacks are due to an overproduction of insulin by the Isles of Langerhans in the pancreas. This overproduction lowers the level of the blood sugar to such a point that the attack occurs. It can be relieved almost at once by feeding, sugar, candy or fruit juices. The identification of this important syndrome, hyperinsulinism, is effected by measuring the blood sugar level and by a sugar tolerance test.

These various disorders have been listed to im-

press upon hospital people the wide scope of the metabolic field. A brief survey by them in many instances will demonstrate that their staffs are paying little attention to the diagnosis and treatment of metabolic diseases. Facilities for the proper study of metabolic disorders are neither elaborate nor expensive.

At Santa Barbara Cottage Hospital a metabolic floor is maintained, including wards, private and semiprivate rooms. Here are grouped the diabetes and nephritis patients, the so-called feeding cases, the endocrine patients and, insofar as possible, the hypertension patients. This segregation of metabolic patients increases the efficiency of the dietetic, laboratory and nursing care. The nurses, familiar with this type of patient, render better service and in many ways facilitate the smooth running of the department.

Dietitian Visits Each Patient Daily

The dietetic orders, important in this field of the practice of medicine, are written by the physician. The dietitian writes the menu for each of the three meals for each day, in accordance with the general orders given by the physician. Each patient's specific diet list is sent to the kitchen where the tray set-up is effected with the specific diet order before the person filling the tray. A special room is used for the set-ups of the weighed trays and for reweighing food that has not been eaten when the trays are returned.

The dietitian visits each patient daily, discusses the diet with him, suits his likes and dislikes when possible and gives personal instruction concerning dietetic matters. If some member of the patient's family is to become responsible for the future preparation of meals, the dietitian discusses the matter in detail with her. This personal contact between dietitian and patient is instructive and most helpful in a smooth working of the dietary régime.

The laboratory arrangements for proper metabolic studies are less complicated than the dietetic facilities. The basal metabolic determinations are in charge of one technician. She has one and sometimes two assistants to aid in carrying out the studies. These determinations are made during the early morning and are completed by noon. In the afternoon the technician devotes herself to blood chemistry work. The glucose tolerance tests, the determinations of blood sugar and other blood chemistry readings are likewise the responsibility of one technician. The urine chemistry and urine studies are the responsibility of another technician. In this way there is no overlapping and an efficient service is maintained.

The most important single item of equipment in the metabolism laboratory is the metabolism ma-

chine. There are several satisfactory, inexpensive models, one of which costs less than \$300. With these machines approximately twenty minutes is necessary to make two readings, with an additional fifteen minutes for figuring the result. A calorimeter is necessary. A satisfactory model costs approximately \$75. Most laboratories already have balances for careful weighing. Such balances cost about \$150.

The tubes, pipettes and standard reagents for use in sugar and other blood determinations are inexpensive. The standardization of the sugar solutions by technicians, the most important part of these procedures, requires some time. These standardized solutions may be purchased but are comparatively expensive.

This brief summary indicates that the initial outlay for equipment is small. The technical help is not expensive when one considers the income that will be earned for the metabolic department.

The x-ray department is an important cog in metabolic studies. This is not appreciated by many hospital people. In children, basal metabolic rates, which measure the degree of activity of the thyroid gland, cannot be accurately determined and x-ray pictures of shoulders, arms and hands are used for this purpose. The epiphyses, or growing ends of the various long bones, are known to unite with the shafts of these bones in normal children at given ages. When the epiphysis, or growing end, unites with the shaft, the epiphysis is said to be closed and further growth will not occur. An x-ray picture will readily demonstrate whether or not these epiphyses have closed at the proper age.

If they have closed too early, an overactivity of the pituitary sex hormone, for example, may have been the cause. If they have failed to close, the trouble may be traced to too little activity on the part of the thyroid or to an absence of the sex hormone of the pituitary gland. Studies of the sella turcica are useful when one is looking for changes in the structure of the pituitary gland itself. These x-ray studies are emphasized because they are not used frequently enough in metabolic studies which are becoming more and more important. On the other hand, the bone changes in gout and chronic arthritis, often metabolic in character, are widely known.

Making the Hospital Metabolic-Minded

The cooperation of staff physicians in the organization and use of metabolic facilities is not a problem in teaching hospitals. But the majority of hospitals are not teaching institutions and it is these institutions particularly that could in many instances well afford to interest themselves in furthering metabolic medicine.

The hospital and the staff may be made metabolic-minded in several ways. At Santa Barbara Cottage Hospital it was brought about in an unusual way. It was felt that metabolic studies should be carried on more intensively and more intelligently. With this in mind, the directors of the institution made it possible for Dr. William Engelbach to come to Santa Barbara and devote his entire time to writing a three-volume work on endocrinology. In return for this help, Doctor Engelbach agreed to lecture one evening each week and to give demonstrations to the staff of this institution. This course was followed for some fifteen months. During this time seventeen members of the hospital staff aided Doctor Engelbach in various ways in the preparation of his work. Following the completion of the writing of these books, one of Doctor Engelbach's associates, Dr. Kost Shelton, was induced to take up permanent residence in the community. The organization and direction of metabolic study in the out-patient department of Santa Barbara Cottage Hospital and in the county hospital were placed in his hands.

The broadened outlook of the members of the staff of the institution as the result of these contacts is demonstrated in a graphic way. In the accompanying chart, the number of x-ray pictures for the study of bone age per total number of patients per year, before and after this régime, are graphed. A tremendous increase in studies of the

sella turcica and bone age will be noted. The increases in the number of metabolic rate determinations, of glucose tolerance tests and of blood sugar determinations have likewise been remarkable. Previous to this régime, the laboratory averaged one basal reading a morning. This number gradually increased to twenty a morning, or 120 readings a week. A study of the records shows that this first enthusiasm has not worn itself out.

Hospital administrators can readily determine whether metabolic studies are being carried on intelligently and for the benefit of their clientele in their own communities. This can be done through consultation with the staff physicians. Several ways are open to increase interest in this field of medicine. The staff itself may appoint a committee—among its members should be included an endocrinologist—to suggest to the hospital administration proper laboratory facilities. Then by program presentations at staff and clinical meetings, metabolic subjects may be kept before the individual staff members.

The reward in better service to the patients of the hospital and the community is great. The financial reward to the hospital itself as the result of such a plan is considerable. The increased earnings of the laboratories from the basal metabolic readings, blood chemical determinations and urine studies and the increased revenue to the hospital's x-ray department will amount to a considerable sum.

Processing Room Trays

Trays are accessory items of processing room equipment that are highly important to the radiographer or clinical photographer who is required to make paper prints of copies of radiographs and to make prints from regular clinical photographic negatives.

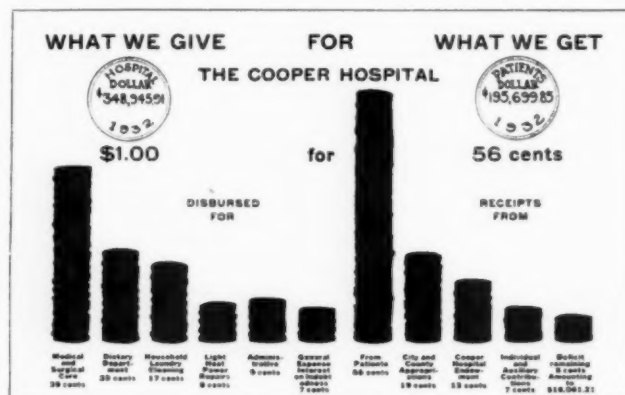
Since the various steps in the routine are of a delicate nature, says *Radiography and Clinical Photography*, the trays should be made of a material that will not cause fog, and that may easily be kept clean, to avoid contamination from accumulations of dirt or evaporated chemicals. For convenience, they should be of a size adequate for the largest print made in the laboratory.

A Short and Striking Annual Hospital Report

Must a hospital's annual report be long, dry and uninteresting? Evidently Huldah Randall, superintendent, Cooper Hospital, Camden, N. J., does not think so. The forty-fifth annual report of this hospital is brief and to the point. Four pages are devoted to graphic presentations of the most significant facts about the hospital's work during the previous year. Further individuality is given the

report by the fact that it is unconventional in size, being nine inches wide and only six inches deep, and is presented in an attractive bright blue cover with white lettering.

The reports of the president of the board, of the superintendent, of the social service department and of the school of nursing are each limited to a single page. Twelve



pages are devoted to financial statistics, eight pages to lists of personnel, four pages to statistics regarding the services rendered and six pages to the reports of the woman's auxiliary and associate auxiliary. Large type is used and plenty of white space is left on each page.

The effectiveness of the graphic presentations is shown by the accompanying illustration.

Carefully Chosen Books Have Therapeutic Value

By EMMA TEVIS FOREMAN
Librarian, Methodist Hospital, Indianapolis

ANY hospital patient presents a study for the librarian who tries to entertain him with books. It is an important study and one that has been neglected for many years. Most modern hospitals supply library service for their patients to some extent. The librarian's problem involves the adjustment of books to the needs of the individual patient.

It is wise to begin with the general assumption that the patient is ill and that his mind is also ill. If he is intelligent, his brain will be sluggish so long as he is ill. If he is the type of man who never thinks but just plods along in a rut, then his mind will be even duller while he is ill.

Many patients are startled when they are asked

if they wish a book to read. They are the people who never visit libraries and whose reading consists of a daily paper. Other patients have thought that some day "when they had more time" they would read this book and that book. They think that that opportunity has come and they want a book that is far too serious to be read while they are recuperating.

If the librarian does not help the attending physician to make his patient well, then she is not doing her duty and the staff doctor has a justifiable complaint. Many times I have seen friends and relatives bring the very latest popular book to the patient—just the book that he would enjoy reading under normal conditions—and I have



Every hospital should have a library containing light, cheerful and easily read books.

noticed that book lying unopened on the table.

There are many pleasant stories that will entertain the patient and at the same time sustain the doctor's treatment. Bess Streeter Aldrich's books are fascinatingly interesting. They hold the reader's attention. They are well written and they will not be harmful to the patient. Fanny Kilbourne, Margaret Weymouth Jackson, Temple Bailey, Kathleen Norris and Grace Livingston Hill Lutz all write wholesome stories. Men like the works of Rex Beach, James Oliver Curwood, Peter B. Kyne, and the ever popular Zane Grey.

Some Interesting Cases

A direct salesman told me that he wished some books on salesmanship. He said that he had trained himself to give his sales organization definite pointers each morning. In one of his favorite talks to his organization he would demonstrate his ability to remember by having one of his men write ten words. He could repeat these words after they had been read to him once. He offered to demonstrate to me if I would write ten words on a slip of paper and read them to him. I gave him some simple nouns that were rather connected, such as "milk, butter, cheese." He could not remember them. He was feeling rather well and it was difficult for him to realize that on the fifth day after a major operation one's mind is not up to par. I left him Vash Young's "A Fortune to Share" and Dimnet's "The Art of Thinking" but no definite books on salesmanship.

A patient who was in bed to get in condition for a thyroidectomy told me that she would like an exciting detective story. I told her we had no detective stories, but I gave her two new books.

A popular and brilliant man underwent a serious major operation. His wife saw me soon after he had been in the surgery and chose with great care the type of book he would have enjoyed had he been well. About a week after his operation, when he was alone, he said, "Have you anything by Zane Grey? I want a tale like that."

One woman whom I saw just after she was admitted told me of her children and that the eldest, at sixteen, was to be the mother and housekeeper for the next several weeks. This woman's days had been too busy with bottles and baths and bumps, and then finally with arithmetic and spelling, to keep up with modern fiction. She was delighted with Fannie Kilbourne's "Mrs. William Horton Speaking." After her serious operation, she filled in the time with Bess Streeter Aldrich's "A Lantern in Her Hand." She thoroughly enjoyed "The Cutters" and laughed heartily over Mrs. Cutter's exasperated remark that she had been teaching her children all of their lives so

that they could go to school and recite for the teachers.

One of the most interesting cases that I have had to study was that of a student nurse. She was in bed for four months to get in condition for a thyroidectomy. Like so many younger people, she could read a book in a day. She was not allowed to have visitors and she asked for several books each time I saw her. This patient was a clever girl and she wanted to speed the day of her operation. We started by giving her two books a week. We looked at the index of each, estimated the number of pages and divided the number into thirds so that her book lasted until I should return in three days.

The case report of each patient is sent to me. Before I enter a room I know the patient's name, his age, his address, his occupation and the name of his doctor. There is much that the librarian knows about a patient before she sees him. For example, a lawyer fifty years of age who lives in the better part of the city is better educated and is accustomed to reading better books than a laboring man fifty years of age who lives differently.

I knock on a patient's door several days after his operation. He is beginning to feel like himself and time is beginning to drag. "May I give you a book?" I ask. "Of course," he replies. I know already what kind of books that patient likes to read. I also know what kind of books he should read now. I step to my cart at the door and select two or three volumes, probably two fiction books and one nonfiction book. The patient's reaction shows me that I have been correct in my estimate.

Each Book Should Be Chosen With Care

Books should be used as part of the treatment a hospital offers and should be chosen with care, just as a patient's diet is given scientific study by a dietitian. A patient's friends and his family should not bring books to him any more than they should bring his dinner to him.

Every hospital should have a library. That library should not necessarily contain the best sellers. Nor should it contain those newest books that raise disturbing questions. Certainly it should not contain the classics or scientific or technical books. But the light, happy and easily read books should be included. Each book should be chosen with care. There should be short stories, love stories, adventure tales, happy and enjoyable verse and light magazines of special interest to both men and women.

Selection of suitable books for patients is a fascinating problem for future research and one that should be studied scientifically. The practice of giving just any book to a patient is obsolete.

When Is the Private Hospital Liable for Negligence of Its Nurses?

By JOSEPH R. CORISH, LL.B.

Somerville, Mass.

TODAY more than ever before hospitals, especially in metropolitan areas, are being used by physicians in the treatment of patients. In keeping with the high degree of specialization that characterizes this modern age, doctors have come to rely more and more upon hospitals for the administration of the more detailed phases of practice. Indeed physicians have come to rely upon nurses to such an extent that even the courts have had difficulty in determining with sufficient accuracy where nursing ends and the practice of medicine begins.

Although much has been written concerning malpractice generally, little is found concerning the legal responsibility of a hospital for the acts of its nurses. Many hospitals find it valuable to give their nurses a series of short lectures on their legal responsibility. Since, according to the familiar legal maxim, ignorance of the law excuses no one, it is of great importance that nurses realize the serious legal consequences that may result from an act of even the slightest negligence. Nowhere, perhaps, may an act of negligence have such serious consequences as in a hospital and it may be for this reason that courts and juries are especially strict in dealing with such cases.

Liability Arises From Slightest Negligence

The relationship of hospital and patient is almost unique. The patient, usually with lowered resistance and frequently wholly unable to look out for his own safety, entrusts himself to the hospital. As has been said by the court¹, "A patient needs some care and attention from the very fact that he placed himself, or is placed, in an institution and it was their duty to give him reasonable care and attention and to have a knowledge of the necessities of his case."

Such a relationship demands that the hospital exercise the highest degree of care known to the law. Liability arises from an act of even the slightest degree of negligence. In one case² in which the court awarded \$2,000 in damages for a burn caused by the negligent handling of a hot water bottle, the court ruled that the hospital by

accepting the patient undertook to give him "such care, nursing and attention as were reasonably necessary in view of his known condition."

In a California case³ involving a burn caused by the negligent placing of a hot water bottle, the court said, "The duty of a nurse . . . is a continuous duty. Dealing as she was with an unconscious patient unable to care for himself, it was her duty to observe the effect of the remedy upon the patient. The powers of resistance and the condition of the patient must of necessity have much to do with the application of remedies . . . and this duty could only be observed by constant and unremitting care and attention, which is just as obligatory on a nurse as is the duty of applying the remedies directed by the physician."

Patient's Condition Is Important Factor

Whether or not the act is one of negligence leading to liability in damages often depends upon the condition of the patient. An act resulting in an injury to a two hundred-pound blacksmith who had entered the hospital to have an x-ray taken of his finger might not give rise to liability. Yet this same act, resulting in injury to a patient still under anesthesia from a serious operation, might well be sufficient to give rise to liability. The rule is well stated by the court in a West Virginia case⁴ where it was said that it is a hospital's duty "to protect its patients in such manner as their condition renders necessary, and such a degree of care and diligence should be in proportion to the physical or mental ailment of the patient that renders him unable to look after his own safety."

The Nebraska court has held⁵ that "a patient is generally admitted to a hospital conducted for private gain under the implied obligation that he shall receive such reasonable care and attention for his safety as his mental and physical condition, if known, require. A nurse's absence for five minutes may amount to negligence."

In a Mississippi case⁶ an eight-year-old child was left unattended for a short time while recovering from the anesthetic given for an appendix operation. The child fell out of bed and death re-

sulted. The court held that this mere inattention was an act of negligence for which recovery might be had.

Exposing a patient to infection is also negligence⁷ and the courts have repeatedly held that it is the right of a patient to be guarded from exposure to contagion. The supreme judicial court of Maine⁸ has held that, "Where public health and human life are concerned the law requires the highest degree of care. It will not allow experiments to see if a less degree of care will answer. It demands the exercise of all possible care."

What Constitutes Negligence?

The following Oklahoma case offers an illustration. A patient whose appendix had been removed five days before awoke early one morning to discover that the heavy rain of the night before had leaked through a defective roof and had considerably wet her bed. Although a special nurse slept in the same room the patient apparently had difficulty in wakening her. Dry blankets were finally given the patient but there was evidence that her nightgown and sheets were not changed until some two hours later. She developed pneumonia. The supreme court of Oklahoma⁹ allowed a recovery of \$3,000 by holding that such facts alone would warrant a jury in finding negligence.

Having observed the various situations wherein the courts have awarded damages for negligence, one is led to inquire as to the definition of negligence. It is so loosely spoken of at times that one may well wonder whether or not it is susceptible to a working definition. Legally, it is the omission of an act which a reasonably prudent nurse in the same circumstances would not fail to perform, or the doing of an act, proper or necessary in itself, in such a manner that a reasonably prudent and skillful nurse might reasonably apprehend that dangerous consequences would follow. Thus, negligence may be an act of omission or one of commission.

The burden of proving negligence is upon the plaintiff. Yet in many cases the courts have held that the facts attending the injury are such that negligence is presumed. In these cases the plaintiff has no further burden than merely showing the facts attending the accident. This rule is well illustrated by a California case¹⁰ where a patient, still under an anesthetic, was taken from the operating room and returned to her bed. Regaining consciousness, she discovered that some forty square inches of her legs were badly burned as though from an excessively heated hot water bottle. In upholding a verdict for \$750 the court held that "negligence, like any other fact, may be established by circumstantial evidence. Mere proof of

the accident carries with it a presumption of negligence."

This rule, known to the legal profession as the doctrine of *res ipsa loquitur* (literally, "the thing speaks for itself"), is based on the fact that where the instrumentality causing the injury is known to be in the control of the hospital, and the course of human experience teaches that such injuries do not result unless there was negligence somewhere, then negligence is to be presumed²⁰ and, unless such a presumption is satisfactorily explained away, the plaintiff wins his case. Juries are not easily satisfied by attempts of the hospital to explain that there was no negligence. Jurors are keenly cognizant of the fact that they may be entrusting themselves or their wives or children to a hospital and that any possible negligence on the part of hospitals must be penalized.

The rule is well stated in another California case¹¹ as follows: "Where the thing is shown to be under the management of the defendant or its servants, and the injury is such as in the ordinary course of things does not happen if those who have the management of the thing use proper care, it affords reasonable evidence, in the absence of explanation, that the injury arose from a want of proper care." Or, as was said in a recent Iowa case,¹² "it does not need scientific knowledge or training to understand that such results are unnecessary and not to be anticipated, if reasonable care be exercised."

Self-Inflicted Injuries Must Be Forestalled

In the definition of negligence it was pointed out that nurses are liable not only for their acts of commission but also for their acts of omission. Thus they are liable not only for doing an act negligently but also for failing to act. For example, if two patients engage in an encounter, or if a visitor assaults a patient, and the nurse stands by and does nothing, the hospital is liable for injuries resulting. Thus nurses not only bring about liability on the part of the hospital under the doctrine of *respondeat superior* when they act negligently, but they also cause liability when they fail to use reasonable efforts to prevent a patient from being injured by any act of third persons which they ought reasonably to have foreseen and averted.²⁰

The degree of care and diligence the nurse is bound to exercise, therefore, is to be measured by the dangers which the particular surroundings and circumstances may indicate to the reasonably prudent nurse might befall such a patient. Failure to use reasonable precautions to prevent all harmful events which ought to have been anticipated by a reasonably prudent nurse results in liability on the part of the hospital. Not only must the nurse

use all reasonable diligence and care to see that she does not injure the patient and, further, that others do not injure the patient, but she must also see to it that the patient does not injure himself when and if he is known to be in an irrational state of mind.

Those cases involving injuries to patients in a delirious or otherwise irrational state of mind present most perplexing problems. Such injuries are frequently caused by the patients' own acts. The rule of law appertaining to such cases is not difficult to understand. There is an implied obligation that the patient shall receive such reasonable care and attention for his safety as his mental and physical condition, if known, may require.

Hospital Must Foresee Danger to Patient

While the rule itself is quite clear, its application presents difficulty. Where liability has been in the one case sustained and in the other denied, the diverse results are not due to any divergence in the law applied by the courts, but rather to delicate distinctions in the facts presented by each case.

The rule in such cases is ably treated by two Nebraska cases. In one case⁵ a patient known to be suffering from a nervous breakdown was admitted to the hospital and left unattended and unguarded, with freedom of the hallways and various rooms. In an irrational moment he wandered into a room where bichloride of mercury was exposed and by drinking some of it caused his death. The court allowed a recovery of \$1,000 for negligence in allowing an irrational patient access to a sink room where poison was kept. Even though his own physician had instructed the nurses to give the patient freedom of the room and halls, the court sustained liability saying, "Duties which a hospital, as such, owes to a patient cannot be evaded by proof that the hospital nurse obeyed the instruction of the physician employed by him."

Certainly this case goes a long way in upholding hospital liability for the nurses were acting as they had been instructed to act by the patient's own physician and the injury was self-inflicted. Yet this case although it contained a brilliant dissenting opinion, held that, knowing of the patient's condition, the nurses had not observed the duty to exercise reasonable care and attention for his safety.

In the other Nebraska case¹³ a typhoid fever patient, in a moment of delirium and unattended, leaped out of a third story window and was killed. In allowing a recovery of \$5,500 the court said: "The patient was left near a movable, unfastened and unprotected window in a room three stories above the pavement . . . the nurse knew that the

patient was delirious . . . under the circumstances self-injury may well have been foreseen."

Of all the leading cases, one decided in Texas¹⁴ seems to be most strict. In this case a patient suffering from a nervous breakdown resulting from influenza was admitted to the hospital. In the early morning hours, at a time when he was free to walk unattended about the building, he escaped. He wandered into a nearby railroad yard and was crushed to death beneath a locomotive. The court in allowing damages of \$5,000 against the hospital said, "The fatal injury was one which might reasonably have been anticipated . . . the appellant knew that the patient was incapable of protecting himself from danger . . . there is liability for all injurious consequences resulting from the wrong." Thus even when the injury is caused by the negligent acts of a third person, the hospital is liable if the patient was exposed to the danger, which a reasonably prudent nurse ought to have foreseen, by the acts of the particular nurse.

In Minnesota¹⁵ a hospital patient known to be delirious was left alone and unattended in a second story room. A few minutes later the window was found open and the patient was lying dead on the ground below. The hospital was held liable on the grounds that, knowing of the patient's condition, a sufficient number of attendants should have been provided to exercise care for his safety.

In Kentucky¹⁶ a patient suffering from delirium tremens was left in the care of one nurse. He overpowered her and walked into another room where he struck and bruised another patient and dragged her from her bed, frightening and injuring her. In allowing a judgment for \$1,000 damages the court held that the hospital, knowing the condition of the first patient, was negligent in leaving him in the charge of one nurse. There are other cases¹⁷ where the evidence was even slighter and yet recovery was allowed.

When Is the Nurse an Agent of the Physician?

The plaintiff, of course, has the burden of proving his mental incapacity or delirium and the fact that the hospital had such knowledge that it ought to have known or reasonably anticipated that he might do injury to himself. As was said¹⁸ in the judge's charge to the jury, "There is an unbending rule that no one is required to take measures to avert that which a reasonably prudent person under the circumstances would not anticipate as likely to happen." Where a patient had merely arisen from his bed and walked around the room several times it was held¹⁹ that such conduct was not sufficient to charge a reasonably prudent nurse with knowledge that he might jump out of the third story window.

Having discovered that in all cases within the scope of her employment a nurse is acting as the agent of the hospital so that the hospital is responsible for her negligent acts, one might further inquire as to whether or not she is also the agent of the physician with whom she is engaged at the time. The fundamental rule is that if she is the servant of the hospital—and it is to be remembered that “servant” is used in its legal sense—and merely the co-worker of the physician, the physician is not liable for her acts. If she is the servant of the physician as well as of the hospital, then both are liable. While the rule is relatively easy to understand, its application in a given situation is not always so clear. How is one to decide whether the nurse is merely a co-worker of the physician or his servant? This is to be determined by the character of the work she was performing at the time. The essence of the test is: Was she acting with the consent or direction of the physician in any act which comes within the practice of medicine, or was she acting in the performance of an act within that of the practice of nursing? If it is the former she is his agent and he is liable; if the latter, she is but a co-worker and he is not liable.

The underlying reason for the distinction is the theory that since nurses have no inherent right to practice medicine or surgery, they can perform such an act only when its performance is delegated to them in their capacity as agents or servants of the doctor under whose direction they are working. Yet even this test loses much of its value when it is realized that even the courts are reluctant to point out with any degree of certainty the point

at which the practice of nursing ends and the practice of medicine begins.

The giving of injections along the line of prophylactic treatments, baths, rubs and other routine treatments are decidedly within the practice of nursing; other more skilled acts and the handling of narcotics, however, are within the practice of medicine. The reason for the rule in the narcotic cases is that since the nurse has no inherent right to possess them she does so not as a nurse but as an agent of the physician.

In keeping with the recent trend in the law toward the greater protection of social interests, and with a realization that to hold hospitals liable for money damages is a far more effective legal stimulus in enforcing high standards of care than is the mere enacting of legislation, the courts are becoming severe. In view of this attitude of the courts, it becomes the duty of hospital authorities to educate employees to exercise the highest standard of care in the performance of their duties so that funds may not be wasted in litigation.

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- ²Cohen vs. Tucker Sanatorium, 106 S.E. 356.
- ³Williams vs. Pomona Valley Hospital, 131 Pac. 188.
- ⁴Hogan vs. Clarkeburg Hospital, 59 S.E. 993.
- ⁵Wetzel vs. The Omaha Maternity & General Hospital, 148 N.W. 582.
- ⁶Maxie vs. The Samuel General Hospital, 93 So. 817.
- ⁷Piper vs. Menifee, 12 B. Mon. Ky. 456.
- ⁸Seavey vs. Preble, 64 Me. 120.
- ⁹Juby vs. Tulsa Hospital Association, 175 Pac. 519.
- ¹⁰Meyer vs. McNutt Hospital, 159 Pac. 936.
- ¹¹Michener vs. Hutton, 265 Pac. 238.
- ¹²Evans vs. Roberts, 154 N.W. 923.
- ¹³Brox vs. The Omaha Maternity & General Hospital, 148 N.W. 575.
- ¹⁴Arlington Heights Sanatorium vs. Deaderick, 272 S.W. 499.
- ¹⁵Mulliner vs. The Evangelischer Diakonissenverein Hospital, 175 N.W. 699.
- ¹⁶Hammock vs. The University of Louisville, 106 S.W. 219.
- ¹⁷Richardson vs. Dumas, 64 So. 439.
- ¹⁸Fetzler vs. Aberdeen Clinic, 204 N.W. 364.
- ¹⁹Davies vs. Springfield Hospital, 196 S.W. 104.
- ²⁰Vannah vs. The Hart Hospital, 228 Mass. 132.

Physician's Diagnosis Should Be Required Before Admission

In most hospitals, at some time during the year the superintendent has been confronted by an irate staff physician who demands to know why it was necessary for him to inform the hospital of the diagnosis of his private patient's condition before admission was permitted. He is likely to refer to the practice of renting a room in a hotel which does not require a complete history of the traveler before he is assigned space.

In some hospitals, it is possible for a physician to obtain private or semiprivate facilities for his patient by simply stating that he desires a hospital room of a certain grade for him. This is not thought to be the best method to adopt since the hospital is certainly concerned with the type of disease that is treated within its doors, and hence the executive has a right to be informed concerning the diagnoses of the conditions of patients applying for admission to the institution.

It is to be regretted that otherwise ethical physicians have been known to endeavor to secure the admission of

patients who are suffering with diseases that would normally bar them from the institution. Sometimes a request is made for the admission of a patient suffering with venereal disease or with some other condition which expediency dictates should best not be treated at home. Frequently, such patients are admitted under a false diagnosis, and eventually in some cases they bring discredit upon the institution. Noisy patients, those suffering with erysipelas and minor contagions or with some other disease for which a general hospital does not offer space are sometimes admitted without the knowledge of the hospital administrator. The same may be said concerning ward patients, and there should be no departure from the accepted rule in regard to this type of person.

THE MODERN HOSPITAL firmly believes that a tactful request by the admission clerk for a diagnosis should not offend the referring physician and that such a request is fully justified. Frequently friction is aroused, not so much by the request for this information as by the manner in which it is made. Physicians not desiring to supply this information should refer their patients to some other institution which is less zealous in the protection of its reputation and of the interests of patients under treatment there.

A Pay Clinic to Match Incomes of Middle Class Groups

By DAVID J. SANDWEISS, M.D.

Detroit

IS IT feasible to establish a clinic offering patients of moderate means the services of trained specialists, x-ray and laboratory examinations, medicines, glasses and orthopedic appliances—in short, all that a well organized charitable clinic offers—at a cost within the reach of this group, and at the same time to allow the attending physicians remuneration commensurate with the services they render? I shall attempt to answer this question by comparing such a model clinic with one, conducted under philanthropic auspices, which offers exactly the type and range of services that would be needed by a group of persons of moderate means.

Any ordinary clinic selected at random cannot be used as a basis for comparison. Many clinics are connected with hospitals and part of their cost is allocated to a superintendent's salary and other expenses involved in running the hospital. Some are special eye, ear, nose and throat clinics and are not suitable for comparison with a clinic furnishing all types of medical services to both children and adults. Detroit, however, has a clinic that caters to both adults and children, supplies every branch of medical service and is connected in no way with a hospital. The operation costs of this clinic can be used, with certain modifications, to estimate the cost of the proposed privately conducted clinic.

The Finances of Public and Private Clinics

Financial differences between a public clinic and one operated by private physicians are great. The public clinic possesses certain advantages. Physicians' services are free; the initial investment is usually an endowment by some benevolent person or group; the cost of medical supplies is usually lower. On the other hand, the private clinic possesses some financial advantages. There is no need for an extensive social service department; the clinic is conducted on a full-time rather than a part-time basis; greater efficiency is promoted by cutting down unnecessary and expensive x-ray and laboratory examinations and by various other means.

With these differences in mind, I have selected Clinic X in Detroit as a basis for this analysis because it meets the requirements of a privately conducted clinic. It has been in actual operation for thirty years and had in 1930 an attendance of 8,475 patients, totaling 72,305 visits. It is housed in a separate building, especially constructed for clinic purposes at an approximate cost for building and all equipment of about \$130,000. It is not connected directly or indirectly with a hospital so that every cost is allocated to the clinic, and is not divided by assigning the cost to another activity, as is the case in a clinic connected with a hospital. It supplies complete medical and surgical services to adults and children, including all the specialties except obstetrics, but including gynecology and prenatal care, and every form of x-ray and special laboratory examinations. Exact and accurate figures on the cost of operating this clinic over a long period of years are available and can be satisfactorily used in making this comparison.

Some Necessary Budget Modifications

Let us see how the budget of Clinic X, presented in the first column of Table I, must be modified in order to be applicable, in a relatively exact fashion, to a privately conducted clinic. It will be noted that the budget amounts to \$105,174.93.

Costs of items found in the budget of Clinic X which would not be needed in a private clinic are listed in the second column of Table I, while costs of items necessary for a private clinic not found in the budget of Clinic X are found in the third column. The budget of the proposed private clinic is presented in the fourth column of Table I and amounts to \$165,753.

Several items are eliminated from the budget of the proposed clinic, such as one director and one assistant director. Items included in the budget of the proposed clinic not found in the budget of Clinic X are one business manager, one assistant business manager, two extra telephone operators, custodian (man and wife), physicians' salaries, 10 per cent of the clinic costs retained, rent and depreciation of expensive equipment. The total of

items to be eliminated is \$42,053.09, whereas the additions, including the physicians' salaries, total \$102,631.16.

Item 30 in Table I—10 per cent added to clinic costs retained—represents an attempt to recognize that certain items, such as supplies and salaries, would cost a private clinic more than they cost a charitable clinic. Addition of 10 per cent of the total cost retained is perhaps a fair allowance in this item.

Rent, item 31, was figured at \$500 a month or \$6,000 a year. The annual rental, including light, heat, water, janitor service, taxes, interest, insurance and finance charges, generally aggregates about 12 per cent of the capital value which in

Clinic X originally totaled approximately \$100,000. The annual rental of \$6,000 is considered a fair allowance because (a) the value of the building and land has shrunk considerably, (b) light, heat, water and other items were included separately in the budget and (c) a private clinic operating on an eight-hour basis would require less space than does Clinic X operating only three or four hours a day.

Depreciation, item 32, was taken only for the elaborate and expensive equipment such as x-ray, physiotherapy and electrocardiograph machine. These were figured at 20 per cent of the original cost, so that in a period of five years the original amount is replaced. Five-year total depreciation

TABLE I—BUDGET OF PROPOSED CLINIC DERIVED BY MODIFYING BUDGET OF CLINIC X

	<i>Budget of Clinic X</i>	<i>Items Elim- inated</i>	<i>Items Added</i>	<i>Total Budget of Proposed Clinic</i>
1. One director, one asst. director, six social workers, one social service sec'y, #business manager, # asst. business manager.....	\$19,037.44	\$19,037.44	\$7,000.00	\$ 7,000.00
2. Seven nurses.....	12,678.75	—	—	12,678.75
3. One physio. technician, one laboratorian, one asst. laboratorian, one lab. tech., one lab. clerk, one x-ray tech.....	8,940.73	—	—	8,940.73
4. Pharmacist, one dietitian, one asst. dietitian....	4,939.11	1,496.62	—	3,442.49
5. One office manager, one private sec'y, one book-keeper, one tel. operator, one admitting clerk, one medical clinic sec'y, one surgical clinic sec'y, one registrar, one asst. registrar, one file clerk, two msgrs., #two tel. operators.....	10,668.94	3,715.95	2,100.00	9,052.99
6. One bldg. supt., one janitor, two maids, one cook, # custodian.....	4,946.67	2,456.83	2,400.00	4,889.84
7. # Physician salaries.....	8,876.85	8,876.85	77,097.00	77,097.00
8. Vacation substitutes, sick and Sunday and holi-day relief.....	2,961.50	180.00	—	2,781.50
9. Auto supplies.....	120.20	120.20	—	—
10. Auto activities.....	220.82	220.82	—	—
11. Education (books, magazines, etc.).....	103.68	—	—	103.68
12. Furnishings (exclude \$27.12 for kitchen furnishings).....	1,162.84	27.12	—	1,135.72
13. Cleaning (exclude cleaning of kitchen \$91.50, cleaning supplies \$22.05, water for kitchen \$5.00)	366.52	118.55	—	247.97
14. Food.....	1,968.56	1,968.56	—	—
15. Fuel and electricity (excl. for gas \$108.20, elec. \$110.00 for kitchen).....	3,166.97	218.20	—	2,948.77
16. Grants (membership to societies).....	40.00	—	—	40.00
17. Temporary personnel, repairs and services not contracted for, miscellaneous items, laundry (exclude kitchen laundry \$32.85).....	3,731.60	32.85	—	3,698.75
18. Insurance (fire, liability, etc.).....	430.93	—	—	430.93
19. Medical supplies.....	12,423.75	—	—	12,423.75
20. Personal car (errands, etc.).....	49.49	—	—	49.49
21. Repairs (exclude \$28.78 for kitchen).....	1,401.49	28.78	—	1,372.71
22. Stationery and paper (excl. \$72.83 for kitchen as cartons, napkins, etc.).....	2,469.22	72.83	—	2,396.39
23. Street fares (social workers in district).....	111.66	111.66	—	—
24. Telephone and telegraph (excl. soc. service)....	1,639.66	819.83	—	819.33
25. Transportation (freight, etc.).....	49.55	—	—	49.55
26. Bond.....	40.00	—	—	40.00
27. Storing and erecting awning.....	66.00	—	—	66.00
28. Cost of license (elec. sign, narcotics).....	12.00	—	—	12.00
29. Interest on mortgage.....	2,550.00	2,550.00	—	—
30. # 10% added to clinic costs retained.....	—	—	6,394.16	6,394.16
31. # Rent of private clinic (\$500 mo.).....	—	—	6,000.00	6,000.00
32. # Depreciation of elaborate equipment.....	—	—	1,640.00	1,640.00
Totals.....	\$105,174.93	\$42,053.09	\$102,631.16	\$ 165,753.00

Items not found in Clinic X and added to the budget of the proposed clinic.
Items italicized are eliminated from the budget of the proposed clinic.

is used to allow for new improvements and obsolescence.

The figure of \$77,097 for physicians' salaries in the proposed private clinic, item 7, was determined by an analysis of all visits made by physicians to Clinic X—visits to the twenty-four different medical departments and to the nine services, as well as the actual hours spent by the physicians in each of the twenty-four medical departments. Five full-time physicians are allowed in the budget of the private clinic, although the actual hours spent in these departments do not warrant full-time men. This is done to give the surgeon, the urologist and the eye, ear, nose and throat specialist several mornings a week in the hospital to perform necessary major surgery. One additional full-time medical man is added to act as director in charge of the medical work, to see overflow of patients and to care for bed patients in the hospital. The salary allowed each full-time physician is \$7,800 a year, based on Publication No. 10 of the Committee on the Costs of Medical Care, which shows the net income per year for specialists in the city of Detroit.

Part-time specialists in the remaining nineteen medical departments receive \$7.50 per hour, based on the actual hours spent in Clinic X for these respective services. The minimum allowed for any part-time physician, regardless of the number of patients seen or time spent, is \$500 annually. It should be remembered, however, that these salary figures are tentative and could be varied in any desired way.

A Comparison of Costs

Analysis indicates that in ten of the medical departments, such as general medicine, heart, chest and gastro-intestinal, the physicians spent, on the average, one-half hour for each new visit and fifteen minutes for every return visit. In the remaining departments, such as allergy, eye, ear, nose and throat and dermatology, less time was spent. The time spent by the physicians per visit, new and return, is liberal compared with the allowance based on the estimates for general medical clinics as presented in "Clinics, Hospitals and Health Centers" by Michael M. Davis of the Julius Rosenwald Fund.

A comparison of Clinic X with the proposed private clinic with regard to cost per visit and cost per patient per year is shown in Table II. To duplicate in every way in a privately conducted clinic the service rendered by Clinic X, except the social service work, with every physician adequately paid, would cost a total of \$165,753. This equals, on the average, \$2.43 per visit, diet kitchen visits excluded. This charge covers every type of

medical and surgical attention to ambulatory patients, including professional services of physicians and of dentists for ordinary dental care, excluding bridge work. Taking the average number of visits per patient, the average cost is \$19.56 per patient per year. This figure, however, does not equal the average cost of medical service excluding home cost, obstetrics and hospitalization. The figure of \$19.56 is based upon the experience of that particular group of patients who visit a

TABLE II—COMPARISON OF PRIVATE CLINIC AND CLINIC X WITH REGARD TO COST PER VISIT AND COST PER PATIENT PER YEAR

	Clinic X	Private Clinic
Number of patients	8,475	8,475
Number of visits	72,305	68,177 #
Cost of operation	\$96,298.08	\$88,656.00
Physicians' salaries	8,876.85	77,097.00 ##
Total cost of service	105,174.93	165,753.00
Cost per visit	1.45	2.43
Cost of service per patient per year	12.41	19.56

There were 4,128 visits to the diet kitchen of Clinic X. As the private clinic would have no diet kitchen, these visits were deducted.

Of the 72,305 visits, 53,624 were made to physicians. As the physicians' salaries total \$77,097, the average charge, on the basis of total visits to physicians, to cover physicians' salaries amounts to \$1.43 per visit.

clinic, and it is not known whether or not they secured all of their medical service through the clinic. The figure, therefore, cannot be used as a basis for estimating the average amount which a patient would have to pay per year for medical service.

The average visit cost of \$2.43 is a useful working figure, although in many departments, particularly dentistry, cardiography, laboratory and x-ray, the unit of service is not the patient's visit, but rather the particular technical process performed. As a basis for a fee schedule it is necessary to have a complete series of charges for each of the various kinds of services which could be rendered in each of the various departments. The ultimate objective would not be to make the average fees to the patients cover the average costs to the patients, but rather (a) to have each fee per service based upon the cost of each service and (b) to have the total revenue equal the total costs.

In order to arrive at detailed costs, the total costs of operating the institution were classified as follows: direct costs, occupancy costs and administrative costs. Direct costs were charged to their respective departments. Occupancy costs were charged to the respective departments on the basis of space occupied as follows: medical 70 per cent, x-ray 10 per cent, laboratory 5 per cent, pharmacy 7 per cent and physiotherapy 8 per cent. Administrative costs were obtained by estimating from a manager's and bookkeeper's point of view, the

relative importance of each department and the proportion of attention required by each of these departments.

These distributions gave the total cost of each department and the cost per unit of service. The cost per visit, which implies all visits to any branch of medicine or surgery requiring the attention of a specialist, is \$2.30. Included in this charge are salaries of physicians, nurses, dietitians and others, medical supplies required in any type of examination and the proportionate costs of maintenance and administration of the clinic.

Cost of complete examination in the proposed clinic of a patient complaining of loss of weight and rapid heart beat, is estimated in the first

TABLE III—COMPARISON OF COST IN PROPOSED CLINIC AND IN PRIVATE PRACTICE WITH REGARD TO COMPLETE EXAMINATION OF A PATIENT COMPLAINING OF LOSS OF WEIGHT AND RAPID HEART BEAT

	Proposed Clinic	Private Practice
Examination by internist	\$2.30 (or less) ¹	
Complete urine examination	.37 " "	
Kahn test of blood	.41 " "	\$10.00 to \$25.00
Complete blood count	1.44 " "	
Basal metabolism test (B.M.R.)	1.14	10.00
X-ray of chest	5.00	10.00
Electrocardiogram exam. (E.K.G.)	2.30	10.00
	\$12.96 (or less) ¹	\$40.00 to \$55.00
Return visit to internist	\$ 2.30 (or less) ¹	\$ 5.00

¹A stated fee would be charged for each hospital illness, for example, appendectomy, \$50, tonsillectomy, \$20, medical care in hospital, \$10 to \$15 per week. This additional income, not included in the budget, would tend to reduce the \$2.30 per visit.

column of Table III. A comparative figure for private practice is shown in the second column of Table III.

The proposed private clinic might also be conducted on the basis of fees from patients. Let us remember that the cost of the private clinic, developed from the experience of Clinic X, averages \$19.56 per patient per year. Let us assume that 8,475 sick patients visiting Clinic X obtained all of the medical care they needed or thought they needed from Clinic X and from no other clinic, private physician, drug stores or irregular practitioners. We must also assume that after paying the annual fee these patients would not demand a greater number of services than they are now obtaining from Clinic X, thus increasing the cost per patient per year.

The soundness of these assumptions may be doubted. It may be that patients paying an annual fee would use more medical service than do the patients of Clinic X. On the other hand, the figure, \$19.56 per patient per year, is based upon a selected group of individuals, more or less sick,

while if an unselected group of persons, both sick and well, paid an annual fee, the fee from each would probably be considerably lower.

Preventive medicine would also be practiced in connection with the annual service. Individuals seeking admission to the clinic would receive thorough physical examinations and instructions in the prevention of disease and promotion of health. Disease would thus be checked in the incipient stage. These factors would undoubtedly reduce the cost of caring for those who are sick, and the \$19.56 per individual per year applied to an unselected group would in all probability cover the costs of complete medical service, excluding dentistry but including provision for hospitalization.

It would be desirable for the proposed clinic to adopt the insurance principle as soon as possible and bring into the scheme an unselected group of individuals, each of whom would pay an annual fee entitling them to medical service. This annual fee should, if possible, include also the cost of hospitalization, since for the middle class individual the cost of hospital care is one of the paramount financial problems in medical service.

The cost of equipping and furnishing Clinic X, exclusive of building and land, was \$25,000. Rent is included in the budget of the proposed clinic, as is depreciation of expensive equipment. On this basis, the financing of the proposed clinic would require \$25,000 initial investment and a certain yearly deficit during its formative period.

This study of Clinic X, modified to fit a privately conducted clinic, justifies the belief that the medical needs of the middle class group can be satisfactorily met by such a clinic. This plan is particularly commendable since it makes available to persons of moderate means adequate facilities for diagnosis, treatment and hospitalization at a cost easily within the reach of this group, at the same time paying the physicians for services rendered.

Maintaining Quiet in the Hospital

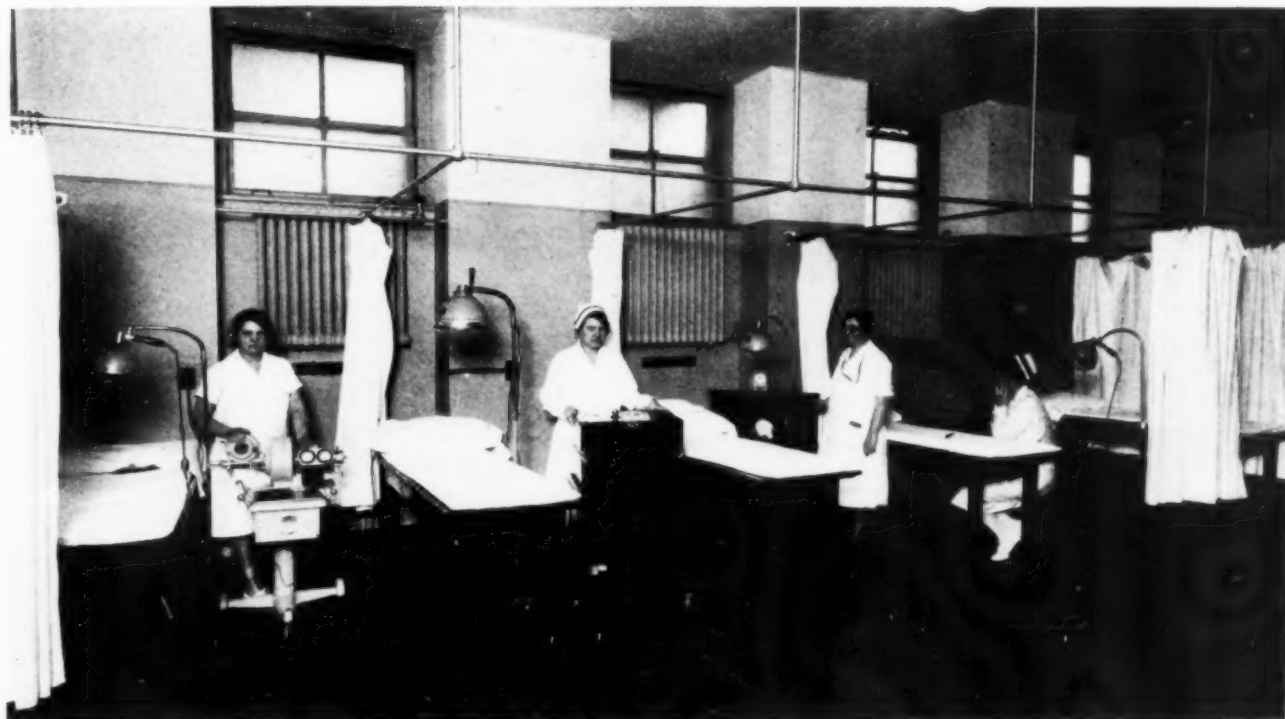
Quietness is a most essential and appreciated quality throughout the hospital housekeeper's department. In obtaining it, the following steps should show results, says H. V. Heldenbrand in an article in the *Hotel Monthly*:

1. Impress upon maids continually the necessity for talking in low tones—but don't let them whisper. Strangely enough, whispers are often more audible than low pitched tones.

2. See that maids do not call to one another. They should always go where the one addressed is if it is necessary to hold conversation.

3. Do not permit maids to "bunch up" and chatter.

4. Insist that doors be closed quietly. To close a door quietly, the knob should not be released until the door has been closed to the stop and made secure by the latch.



The Physical Therapy Service—How It Should Be Organized*

By NORMAN EDWIN TITUS, M.D

Attending Surgeon and Director of Physical Therapy, Presbyterian Hospital and Vanderbilt Clinic, New York City

ALTHOUGH a department of physical therapy in a general hospital is always a source of gratification to the administration because of its consistent profits, still it cannot function satisfactorily without efficient professional control. A department can be organized and can bring in a small income even if it is operated in a slipshod way, but it will never be professionally or economically successful until responsibility for its results and management are placed in the hands of a specially trained medical man who is accountable to the staff and the administration for operating the service.

Therefore, the first problem to consider in organizing such a department is, who shall be in charge? The doctor who is placed in charge should be one who has had both medical and surgical training and who has some knowledge of orthopedics. An orthopedist who has been a "specialist" ever since his internship or one whose internship was limited to an orthopedic hospital so that he

sees physical therapy from the orthopedic viewpoint alone, emphatically is not the man to place in charge. This statement may not hold true five, six, or possibly ten years hence, but up to the present time orthopedists have been so self-satisfied with their own viewpoint of physical therapy that they are unable to realize that a general medical man can understand physical therapy better than themselves.

The orthopedic service can supply many patients to a physical therapy department, but general medicine, surgery and pediatrics can supply even more patients. Provided the fracture service is not controlled by orthopedists—and there is no reason why it should be—physical therapy can really prove its great value in the early treatment of fractures. As the result of a wide experience in connection with ten hospitals in New York City and vicinity, I do not hesitate to catalogue the "orthopedic specialist" as the worst man to have charge of a physical therapy department.

Next on the bottom of the list come the neurologists, who, with few exceptions, refuse to consider

*This article is one of the Hospital Organization series, under the direction of Dr. Winford H. Smith.

physical therapy as anything but psychotherapy. Physical therapy has proved itself to be a rational method of treatment but the neurologists still are so engrossed in making diagnoses that they have failed to give much consideration to neurologic therapy beyond what is mainly psychotherapy.

After the director of the department has been selected, he should be given an opportunity to take a postgraduate course in physical therapy at a medical school. A fly-by-night one-week lecture course sponsored by a manufacturer and given by a doctor who has turned supersalesman, will not give a true and working knowledge of the subject. Any of the large departments connected with the medical teaching centers can help the doctor acquire the necessary knowledge. For example, a residency is available at the Columbia-Presbyterian Medical Center, New York City, which provides three months of concentrated training for future physical therapy directors.

The director, after studying the needs and construction of physical therapy departments, can give valuable advice to the architect who is to design the department at his hospital. Information on this phase of the subject appeared in *The MODERN HOSPITAL* for May, 1925, and July, 1930.

Chief Technician Should Be Chosen With Care

The director should be given a free hand in selecting a supervising or chief technician who is capable of serving him in the same way that the head nurse on any hospital service serves the attending surgeon or physician. Enough technicians have been thoroughly trained since the war in the administration and technique of physical therapy treatment to supply the demands of hospitals. Ordinary physical therapy technicians who have made good records in hospital departments and doctors' offices do not always make good chiefs. Tact, diplomacy and administrative ability are necessary qualities because of the frequent contacts the chief must make with doctors from other departments. The smoothness with which the department operates is entirely the responsibility of the chief technician.

The chief technician should be allowed to select her assistants, and she must be responsible for correct technique. She must not, however, be allowed to prescribe treatments. Should a patient come from another department with a prescription for treatment that the chief technician, as a result of her clinical experience, considers contra-indicated or inappropriate, she should have the authority to withhold that treatment until the prescription is reviewed by the director. She should be authorized to give one emergency treatment that seems appropriate to cases that are sent to the department

when the director is not available. A second treatment should not be given until the patient is seen by one of the doctors on the staff of the department. Inefficient chief technicians have been known to violate this rule, with serious results.

The assistant technicians, who are selected by the chief, should be entirely responsible to her. The chief should also be empowered to recommend changes in personnel. Due to her numerous administrative duties, the chief should not be expected to give routine treatments unless there is a clerk to handle the department's charts and records. She can, however, take on cases requiring special technique that cannot be handled by the other technicians, such as eye cases and special rectal and pelvic conditions.

In a good sized department in a large hospital or clinic a clerk is necessary. The clerk need not have any training in physical therapy. She should have charge of the registration and appointments for treatment and should obtain and present the case histories of patients to the attending director when the new patients report to him for original prescription for treatments and for routine review. In a large department, such as that at Vanderbilt Clinic, New York City, where over 10,000 treatments are given each month, the clerk needs an assistant who also acts as messenger.

Ward patients and others who cannot walk should be conveyed to and from the clinic, and the personnel of the department should not be required to perform this task. A maid to clean the department and to assist in changing the linen and taking care of the laundry is also necessary in a large department.

Must Work Closely With Other Services

The director and his associates should attend the department with sufficient frequency to take care of prescribing for new patients and checking up the progress of patients under treatment. If special grand rounds are made by the different services, the director or one of his assistants should make rounds with the staff of each service at least twice a month. In this way the service is made available for giving advice concerning the usefulness of physical therapy in the treatment of cases on the wards.

The doctors on the physical therapy service should be used by the attendings on other services for consultations. Consultation requisitions should be promptly complied with and notes should be made on the regular charts of the patients seen, concerning the advisability of using physical therapy and what treatment can or should be given. If the service does not warrant the hiring of technicians to treat bed patients only, the chief tech-

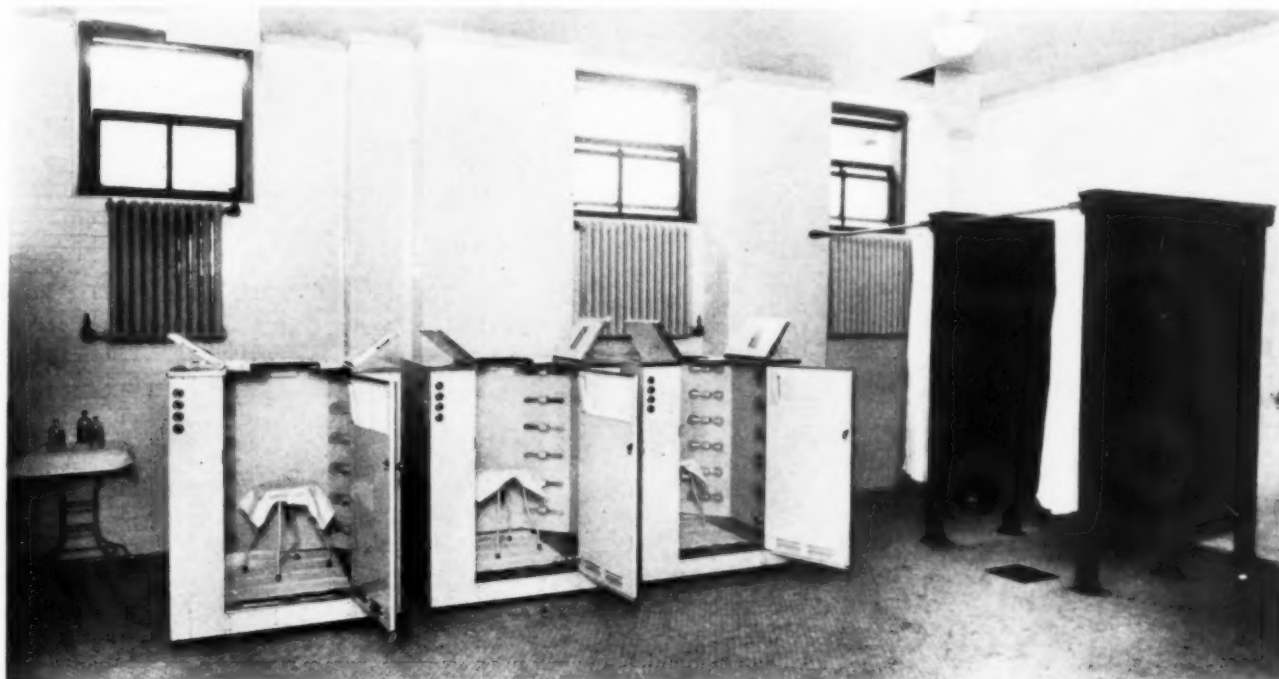
nician should designate certain technicians to treat the bed patients with such portable apparatus as is available.

In some hospitals the chief technician makes regular rounds, looking for cases for the director to see when he arrives at the hospital. The closer the teamwork between the physical therapy service and the other services in the hospital, the greater usefulness will be found for physical therapy. More business will be done and the hospital's income will be increased.

Any service in a hospital is of little importance unless good records are kept. The system of physi-

ferred for a long course of treatments they should be referred back to their own clinics at least once a month for reexamination and check-up and a progress note should be made on the chart by both departments. If this is not done, complaints are sure to be made that referred patients (with paralysis and ankylosis) become buried in the physical therapy department.

When a patient is seen by the doctor in the physical therapy department, either on admission or for check-up, the entire clinical record should be obtained by the clerk and presented with the patient. New patients referred by other clinics must



Three electric light bath cabinets are part of the equipment of the hydrotherapy department at Vanderbilt Clinic.

cal therapy records used at Beekman Street Hospital, New York City, was described in *The MODERN HOSPITAL* for May, 1925. This system has functioned satisfactorily since it was started in 1921. It has not been found necessary to change the original system, except to omit the rubber stamps used for consultation requests. The consultation request form is different in each hospital and is designed to meet the particular requirements of each. So far as the records of the department itself are concerned, the system in use at Beekman Street Hospital has proved satisfactory for all cases, including compensation cases.

It is important to remember that all cases reaching the physical therapy department are referred from other departments, and that original admissions are not made by the therapy service. Therefore, all patients who have completed the necessary treatments must be referred back to the original department for discharge. When patients are re-

always be accompanied by requisitions showing the complete and exact diagnosis.

If the doctor who refers the cases wishes to try his hand at prescribing the physical therapy, he should not be discouraged from doing so, but the final responsibility for the treatment rests solely on the director. He must always have the final word regarding the treatment to be given, the same as the attending surgeon is the sole judge of what surgical procedure shall be instituted. The orthopedists and neurologists generally object to this, due to their conceited ideas of their proficiency in physical therapy. They should explain to the director what reaction they wish brought about, and it is the director's responsibility to produce it. The administration and medical boards should support the director in this matter, in the same manner as they would support a surgeon if the director tried to dictate to him regarding surgical technique.

In planning the construction and layout of a



The massage room at Beckman Street Hospital. The curtains are crib sheets hung on wires stretched across the room.

physical therapy department even the most efficient hospital architects in the country cannot rely safely on their individual knowledge and experience. They must consult the director regarding his particular needs. The council on physical therapy of the American Medical Association cannot be consulted safely if a recent statement of one of its members is indicative of the council's attitude. The statement referred to, which appeared in the May 6, 1933, number of the *Journal of the American Medical Association*, says regarding the physical therapy department: "Ninety per cent of the equipment necessary in a department in a general hospital can be found in the ordinary home."

The only safe method of determining the particular needs of a department is to inspect a number of physical therapy departments and let the experiences of their directors be a guide.

As the result of twelve years' experience in designing and constructing physical therapy departments, I am convinced that the ideal construction under all circumstances has not yet been achieved. The general tendency is to squander too much money on construction, leaving too little for equipment. The equipment earns money, while the extra construction cost simply increases overhead. Inasmuch as the management of a hospital is interested in the fact that a physical therapy de-

partment is the greatest income producer in the institution, the item of income producing capital investment should be thoroughly considered.

Treatment cubicles separated by costly marble slabs, fitted with expensive plumbing fixtures and fancy tiling on the walls, greatly increase the initial construction cost of the department. On a strict accounting basis the interest on this investment (or the rent) is the first item chargeable against the running of the department. Expensive tile floors please the eye of social service workers and members of the women's auxiliary, but they work havoc on the feet of the technicians who have to stand on the floors eight hours every day.

It must be remembered that the technicians are required to do manual labor in performing their duties, and it is imperative, therefore, that rest-room facilities be provided where they can relax during the lunch hour and also during working hours when there is a lull in the parade of patients. Nurses sometimes object to the high salaries paid technicians, but they fail to take into consideration the type of work performed and the fact that there are no afternoons off.

The physical therapy department at Vanderbilt Clinic handles at least 10 per cent of all the patients who attend the various clinics each day. And these patients do not just have a dressing

changed, or receive a prescription from the doctor. They receive at least one-half hour's actual treatment under the personal supervision and through the personal physical effort of the technician. This shows why it is necessary to give attention to the physical condition of workers.

Special Wiring Is Needed

Another feature in the construction of a physical therapy department that the architect fails to take into consideration is the special type of electric wiring that is needed. All direct current outlets must have a similar polarity, and the direct current apparatus must also have polarity plugs so that there can be no error in connecting apparatus, which would cause the apparatus to burn out, thereby increasing the repair bill. Trained technicians know how to make proper connections, but interns and other persons in the hospital are inclined to go into the department at night, connect up the sun lamps and take sunbaths. In the old Presbyterian Hospital, New York City, every ultraviolet burner was ruined in this way, due to the fact that it was considered impractical to change all the outlets before the hospital was torn down.

In designing the physical therapy department for the new medical center, six years ago, I particularly specified that all wiring for apparatus should pass through a panel board in the director's office so that blown fuses would be easily accessible, and that the power input should have one heavy master switch which could be thrown and locked "off" so that no apparatus could be tampered with at night. The architects, however, refused to install the master switch, and until lock switches were placed on the lamps and special locks without master keys were placed on the doors, it was not unusual to find lamps and apparatus operating when the department was opened in the morning. These are a few points in the construction of a department that even a superior

architect fails to understand, and which are learned only as the result of actual experience.

The practice of requiring the patient to buy cards good for a certain number of visits is the best financial system. Some hospitals charge for individual treatments, but this does not work out as well as payment by the visit. When patients pay by the visit the director feels free to prescribe what he believes is needed and is not limited by what the particular patient can afford. This method achieves far more satisfactory results for the department. If the standard fee for the visit is \$1 and the patient cannot afford to pay that much, the social service can determine what he is able to pay and supply the patient with a ticket that is good for so many visits. So long as the patient has a card that is to be punched by the clerk or chief technician, neither the workers nor the doctor himself is biased by what the patient is paying. Some technicians will give special attention to persons paying the full rate, if they know it. The card system with payment by the visit eliminates all discrimination.

In city hospitals and in those patronized by the poorer class of patients, tipping by the patients has to be watched. It is not due so much to the attitude of the technician as to the psychology of patients who have attended such clinics where they are led to believe they must tip to get service. Any technician accepting tips should be dropped as such a practice demoralizes the staff.

One more point should be mentioned concerning the management of the personnel. The duties of technicians should be varied at least every two months. No person likes to do exactly the same thing day in and day out. Therefore, it has been found advantageous to require the staff, except for the chief, to rotate in regular progression. This, of course, means that all the personnel must be qualified to do everything and eliminates the ordinary masseurs and those of deficient mental capacity who are drones rather than workers.

Nurse Overproduction Has Missed This Field

There is no cause for concern about the overproduction of nurses in the psychiatric field at the present time, in the opinion of Anne How, superintendent of nurses, New Jersey State Hospital, Greystone Park, N. J. Mrs. How estimates in the September *Bulletin of the American Nurses' Association* that the lowest possible number of nurses needed in mental hospitals is 5,000. This would mean an average of one nurse to every sixty patients.

The 1930 census figures show there are 291,077 mental patients in residence in 166 state and federal hospitals for

mental diseases. To care for these patients, according to the census figures, there were 1,531 women nurses and 339 men nurses, which means one nurse for every 155 patients. Seven states are maintaining mental hospitals without any graduate nurses whatsoever. Six states have one graduate nurse only. In these thirteen states, there is one nurse to every 3,772 patients, which, according to Mrs. How, "represents the low in nursing standards."

The thirteen states representing the highest number of nurses employed in mental hospitals give a proportion of one nurse to eighty-three patients. This includes night and day executive and teaching staffs. Of nurses employed in state hospitals many are graduates of schools with an entrance requirement of one year of high school or less.

Editorials

Training for Administration

THE success of the Institute for Hospital Administrators conducted by the American Hospital Association has been most gratifying. Two hundred hospital superintendents and department heads came from all parts of the United States and from several foreign countries. Many though by no means all were officially sent with their expenses paid (as they should be) by their institutions. A registration double what had been anticipated and the enthusiastic attendance of these men and women from the start to the finish of the three weeks' course are complimentary both to the organization which offered this opportunity and to the men and women who responded to it.

What next? Shall there be a similar institute next year? Or when? And how? Although this institute seems to have been much the most successful of its kind thus far, the hospital world will remember that this is not the first such attempt. "Institutes" lasting from two to six weeks were offered in Philadelphia by Temple University for several years, ending in 1928, and, about the same period, by Marquette University, Milwaukee. Several organizations engaged in nurse training have offered, and Teachers' College continues to provide, some postgraduate courses for nurses in institutional management. The lessons from these and other experiments will doubtless be considered, together with the experience of this year's institute, by the committees of the American Hospital Association which will consider future plans.

There is a fundamental difference between courses designed for men and women who are experienced in hospital administration, and courses of study for those who start at the beginning and who are looking forward to a hospital career. We hope for annual offerings, under representative auspices, of "refresher courses" or "institutes." But the more fundamental need is for a thorough, extended and firmly established course of study whereby qualified men and women can secure training in hospital administration. Only through such an educational establishment can professional standards of hospital management be soundly developed and securely maintained.

This year's experience indicates that the active cooperation of a university is of great importance in carrying through even a short institute. For full courses the participation of a university is not

merely important, it is essential. The University of Chicago, which provided convenient and beautiful quarters for the recent institute and which contributed the services of several of its faculty members, has the advantage of central location and of proximity to the national organizations most closely concerned with hospital work. Men of practical experience in hospital management must unite with university men in schools of business administration, medicine, public health and education, in thinking through the subject matter, the curriculum, the entrance requirements, and the other elements of an adequate course of study and training. Not only thought, but also experiment over a period of some years may be necessary in order to work out material, develop methods of instruction and fit all this into a permanent educational scheme. Such experiments by any first rank university should receive the unstinted support of the hospital world.

Tax Exemption for Hospital Service

THE doctor who knows on which side his bread is buttered never treats patients in his office as he does in the "charity" clinic. Nor does his superior medical officer treat patients in their homes or in the private pavilion as he does on the wards. It is only in the matter of lavish and gratuitous diagnostic and therapeutic gifts, and in his follow-up after discharge, that the ward patient possesses certain technical advantages over his affluent neighbor, who gets these things besides a very personal kind of attention because he can afford them. At least the ward or dispensary patient has no further worry about cost once he is admitted for treatment, unless he has the misfortune of suffering from an uninteresting or a long drawn out condition which requires application and great patience to control, in which case the hospital has the legal right to transfer the responsibility and pass him on to the tender mercies of another type of institution in the philanthropic classification.

The patient who has risen above the ward or dispensary level commands everything that scientific and humane service can provide, that is if he rises high enough on the curve to be able to pay for them. The cynic who said that "they practice on the poor to enable them to plunder the rich" put it crudely as well as unkindly, but the word picture in this quotation should give us pause and not be wholly dismissed because of the hyperbole used by a disgruntled and unsympathetic critic.

When patients are treated in groups without much effort at individualization and when they get

something for nothing, the physician, who is subconsciously in rebellion, is apt to be irritable over the enforced philanthropic contribution which custom requires him to make to the institution. It appears at times as if he gave it grudgingly, and would resent the fact that not even the government will permit him to make a deduction on his income tax return for this contribution to charity. Perhaps the government should, and confer this additional boon on philanthropic institutions, besides those subsidies and tax free benefits which they already enjoy.

It is surprising how much service one can purchase in philanthropy for comparatively little money, witness the pay roll of the average hospital, and it may be that an approach to the solution of the problem can be made by extending government exemptions to physicians on the basis of charitable work which will enable them to render service as partially rewarded officers of the institution. It will at least recognize what everyone knows to be true, that the work of the physician in the ward and in the dispensary is, after all, of a philanthropic nature and should have more than the compensation he usually receives in experience and in prestige.

This is not meant to suggest that the medical profession is mercenary in its human relationships. It is, however, a cold statement of psychologic facts which we may all have to take into consideration if we would avoid certain criticisms that fill our professional and lay publications these days and which seem to be well founded on experience.

Expert Testimony

FURTHER evidence of the warping effect of present legal practice upon expert testimony is contained in data collected by the committee to review medical and hospital problems in connection with the administration of the workmen's compensation law in New York State.

In a study of a sample group of contested cases an impartial physician chosen by the Department of Labor found that in 68 per cent of the cases the condition was due to the industrial accident, in another 13 per cent it was impossible to say, and in 18 per cent the condition was in no way related to the accident. Compare these findings with the "expert testimony" of the physicians employed by the claimants or the insurance physicians. Every physician who testified for a claimant alleged that the disability was due to the accident. On the other side, "in 75 per cent of the cases in which reports were given by physicians chosen by employers or insurance companies, all causal relationship be-

tween the existing condition and the industrial accident was denied—certainly a striking disparity of opinion."

Of course there is nothing original in this finding. But it would be original, courageously original, for a state to lay down the rule that expert testimony would be provided in each case when needed through experts selected and paid by the state. Such a move should help to eliminate many of the mockeries of present legal practice and should protect experts from the necessity of listening too attentively to the clink of gold in the client's pocket. It would likewise be courageously original if hospital groups were to manifest their professional and civic consciousness by taking leadership in solving this and similar problems which touch the public welfare at such tender spots.

Ancient Yet Timely Advice

IMPENDING crises often bring clearer vision and stronger unity to those facing danger. A compact and well disciplined army is at great advantage against a scattered and divided foe. If those words spoken on the first Independence Day morning were ever applicable to local conditions, they are so now. "We must all hang together or assuredly we shall all hang separately," remarked Franklin as he dipped his quill preparatory to signing a memorable document, declaring a country's governmental independence.

Today those organizations representing the institutional and professional care of the sick should display in no uncertain degree a spirit of cooperation or assuredly each will miserably fail in its own field of endeavor. Like a scourge has spread through the land the conviction that hospitals are unfair to physicians—that lay leaders are endeavoring to deprive both of the just rewards of their labors. While here and there it cannot be denied unfair practices on the part of hospitals and physicians for a time flourish, yet, by and large, each respects the rights of the other. To rush hastily into generalizations is a dangerous form of logic. It is the chief weapon of the radical.

The duty of the American Hospital and the American Medical Association is clear. These bodies can and should intelligently yet firmly assume leadership by evolving a code of relationship between physicians and hospitals which would replace suspicion with understanding and jealousy with mutual respect. The professions of medicine and hospital administration are not without their radicals. These should receive the rebuke they deserve. No greater service could be rendered the

sick of the land than this. The solution of this problem cannot be found in satisfactorily settling local misunderstandings. The remedy lies in the action of national organizations. To fail to take advantage of this opportunity is to acknowledge either a lack of vision or of interest in the cause of the nation's sick. If the physician and the hospital do not now hang together they will each deserve to hang separately.

The Public Lags

GROUP hospitalization, the readjustment of rate cards, the rearrangement of services to fit more nearly the public purse are but a few of the measures that will not be vouchsafed the community until it asks for them.

To be sure, the crystallization of public opinion is a slow and uncertain process. Moreover, the organization of group action often long awaits a leader. If and when the community demands a plan whereby group hospitalization can be offered the public, then and only then will hospitals and physicians cease bickering and seriously consider the immediate adoption of such a scheme. Vox populi, Vox Dei—the voice of the people is often as impelling as is the voice of God. Moreover, if moves of the type which can be proved to advance the good of all the community originate there, none can suspect either the doctor or the hospital of personal or financial interest.

How long will the people lack the initiative to require of the hospital and the doctor that they cease arguing and do something practical in bringing these things to pass?

The Private Public Ward

NEW times demand new practices and policies. Blindly to worship traditions is to develop mental apathy which makes progress impossible. In some communities hospital practices may be observed which are at least of antebellum if not Victorian vintage. In many institutions if a physician charges a fee of a ward patient he courts immediate discharge from the hospital staff. Particularly is this true in the Eastern and more effete sections of the country. Here a harmful regard for tradition is most often found. Ward patients have in the past been immune from charges for medical services because it has been argued that such are carried at a loss by the hospital and hence the doctor should not profit while the institution loses. But costs in the past half decade have gradually declined so that it may be

truthfully said that often the ward rate covers the cost of maintaining the patient.

Be this as it may, the hospital, it appears, should provide for the care of patients at or near the usual ward rate in quarters and under such regulations that nonstaff or even regularly appointed visiting physicians might attend them and charge for this service a moderate fee. While about two-thirds of the physicians in the country enjoy some hospital connection there are thousands who hesitate to hospitalize their patients because they know they will not be able to follow them into the institution. Such a plan whether it be denominated as a public private ward service or by any other term seems practicable and would tend to strengthen community interest in the hospital. In addition no disturbing administrative obstacles to the successful operation of this plan appear to exist. The ethical physician has a right to expect from the hospital every assistance in the treating of his patients.

The Processing Tax and the Hospital

MUCH confusion appears to exist in the minds of hospital administrators as to the application of new processing tax measures to the work of the hospital. Some believe that only gauze and cotton employed in the treatment of private cases are subject to this regulation. Others hold that no hospital not conducted for profit should be expected to pay this tax.

It seems hardly reasonable to attempt to divide hospitals into two distinct groups—those that make a profit and those that do not. It would appear as sensible to endeavor to differentiate between patients who were individually profitable and those whose medicines and laboratory studies were so costly that a loss resulted from their care. The balance sheet of a business displaying only departmental profits or losses is not particularly informative unless net results of operation covering the whole period are set down.

Almost never are voluntary hospitals conducted at a profit. Any regulation that presupposes the taxation of any article or material employed in the conduct of one department but not in another appears both illogical and unfair. Indeed, the enforcement of such a policy seems to verge on economic hair splitting—a step hardly justified when it is considered that each dollar thus exacted is likely to make more difficult the care of ailing but impoverished men and women. If charitable institutions are to be exempt from processing and similar tax measures, the basis for their classification should be on total and not on departmental operative results.

The Wide-Awake Administrator Visits His Colleague's Institution

Doctor Doane believes that every hospital administrator should mingle more frequently with his colleagues in their institutional workshops. This month he conducts a party of superintendents on a fanciful tour through a well conducted institution where efficient administrative methods are observed and discussed

By JOSEPH C. DOANE, M.D.
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cedures as practiced in his institution are so refined that improvement is impossible. Such self-satisfaction would be amusing were it not so serious in its import to the welfare of the community. Such an executive is inclined to adopt remedies without careful consideration of their probable effectiveness and without any knowledge as to the practical experience of others in such matters.

Some administrators who rarely attend conventions and seldom visit other institutions are yet capable of rendering satisfactory service to their hospitals. Some do not even belong to local hospital associations. Good and efficient executives of this type are the exception rather than the rule.

It is regrettable that we cannot standardize many practices daily carried out in the hospital. The common practices of today are likely to become the traditions of tomorrow. The best and most effective way of doing things is often the result of a series of refinements of a poorer method formerly practiced.

It's Easy to Get Into a Rut

All human beings are imitators to a certain degree. A danger confronting every hospital worker is the development of that desolating disease called institutional and personal stagnation. Ruts are formed in daily thought and acts that constantly become deeper and more inescapable. Thoughtless repetition of an institutional practice because it has been done in this manner before often indicates that it should not be done at all or that a better way should be found.

The end results of a hospital inspection are not always spectacular. The average good administrator may learn few new methods during several days of journeying through hospital corridors and grounds. But if he persists in visiting his administrative colleagues, he will, in the aggregate, bring to the hospital under his charge many practices that will save time and money.

Let us now, in fancy, tour the wards and rooms

INSPECTION of methods found effective in the conduct of hospitals throughout the field is of great practical benefit to the administrator, no matter what his degree of training or experience. Too few executives are thoroughly convinced that time and money spent in visiting other institutions are wisely invested.

Such a practice is sure to be of advantage not only to the executive personally but also to the institution he superintends. It would be a splendid thing if boards of trustees insisted that their administrators semiannually spend a week learning new methods in administrative medicine. It is often difficult, however, to convince trustees that a week spent attending a hospital convention or journeying through the field studying hospital management is other than a vacation for their superintendent.

It is far less fatiguing for the executive to spend a week at his desk than to spend it traveling and trustees who are willing to permit their superintendent to make such a journey may discover a reluctance on the part of the executive himself to put forth the necessary effort. There may be several reasons for this attitude on the part of the superintendent. He may be so provincial that he is certain there is little left for him to learn. He may believe that administrative and scientific pro-

of a theoretical hospital possessing a modern and refined organization and technique. As we go, let us comment on what we observe. Let us assume that the visit was expected. The reception clerk has been informed that an inspection is to be made and her very attitude immediately makes the visitors welcome. No long and irritating explanation of the mission of the group is necessary and an early favorable impression of the efficiency of the institution is thus formed. The superintendent, upon being informed of the visitors' presence, steps out of the conference in which he is engaged and makes the party welcome.

A Simple Method of Administering Salt Solution

It is noted that each waiting visitor is kept informed as to when he may expect to accomplish the purpose of his visit. Those waiting in the reception room are supplied with a daily paper or other reading material. The voice of the telephone operator near-by is pleasant. Shortly the superintendent, and not his second or third assistant, announces his readiness to begin the tour.

Adjacent to the entrance and arranged in an orderly fashion, are informative pamphlets for the perusal of visitors describing the type and volume of service rendered by the hospital. The same material is observed in an orderly compartment in each elevator. The absence of reverberation in halls and wards is noted and it is observed that an inexpensive soundproofing material has been placed on ceilings and walls. The personnel of the institution has apparently been trained in voice modulation because there is no loud and raucous talking among doctors, nurses and others. There is no distressing slamming of doors or dropping of pans and trays because proper stops prevent the former and a well trained personnel avoids the latter. The cleaning of the main corridors in the administration building has apparently been performed during the early morning hours because all floors are dry and no mops and buckets are in evidence. No clanging, rattling metal ice trucks with dripping water, irregular rubber tires and loose wheels are seen.

The party arrives at the surgical ward. Dressings are in progress. The dressing team is gowned, capped and gloved. Instruments and sterilized materials are touched only by forceps. The visitor's attention is attracted by a simple method of administering subcutaneous salt solution. The usual unwieldy clothes tree or other support is not used. The flask in which the solution was sterilized is being employed as the container. It is affixed to the head of the bed by a small and inexpensive clamp. The tubing used is 3 mm. in diameter, not the usual $\frac{1}{4}$ -inch or $\frac{1}{2}$ -inch type in which the fluid cools more rapidly than it can be heated either by the

usual hot water bottle surrounding the container or by the more refined electrical method. An ingenious surgeon closely applies to the patient's arm about a foot of the rubber tubing just proximal to the needle, thus utilizing the heat of the patient's body to keep the solution warm. A break in the metal circle supporting the flask permits its removal from the bracket without detaching the tubing when more solution is needed.

At another bed the same apparatus is being employed for the intravenous administration of glucose, and at still another a continuous intravenous drip is being given in the same manner. This method should appeal to the surgeon as well as to the hospital administrator because it represents a simplification of procedure that eliminates the transfer of a solution from an original container to a second receptacle which must of course be carefully sterilized before using.

A large item on the hospital drug bill is the expenditure for glucose solution. Usually this chemical is dispensed in a 50 c.c. ampule in 50 per cent strength. Glucose is often administered in 10 per cent strength and in amounts varying from 350 to 500 c.c. Whether the extensive use in all instances of intravenous glucose is fully warranted scientifically is beside the point. The fact remains that there is a generally increasing tendency to employ this type of medication. The cost of glucose ampules of the size and strength described is about \$11.50 a hundred. It seems that a needed improvement in the method of dispensing this solution is the production of a larger ampule—perhaps of 300 or 500 c.c. capacity. This ampule of course should be supplied with a puncturable top and a proper technique originated to sterilize the stopper before withdrawal of the container's contents is attempted.

Taking Steps Against Dangerous Reactions

This method of subcutaneous and intravenous injection of solution deserves attention because one of the most troublesome and alarming of accidents that occur in the hospital is the incidence of reactions following such treatment. The occurrence of a chill or fever or any of the other symptoms referable to either the circulatory or the respiratory apparatus is usually due to one or more conditions. In the sterilization of a sodium bicarbonate solution, unless the container is tightly corked during the process, the carbon dioxide gas is driven off by the heat and the resulting solution is one of sodium carbonate, a salt foreign to the blood stream. Reactions from improperly sterilized sodium bicarbonate solutions are not uncommon. Again, the apparatus may be unclean, the solution may be too cold, the injection may be too

rapid or a patient may possess a peculiar idiosyncrasy to the solution employed. Simplification of the practice of intravenous injection should safeguard the patient by eliminating in part or in whole one or more of the causes of troublesome reactions.

The medical ward of the hospital is next visited and here, although it is but the middle of the forenoon, order and serenity reign. Rounds have been made, patients have been made comfortable and only here and there is any scientific activity observed. Behind drawn curtains—all the wards are thus cubicled—continuous drainage of a patient's duodenum is being arranged by means of the same apparatus observed in the surgical ward. The clamp is attached to the head of the bed where a flask of salt solution, with a long and a short glass tube inserted through its cork, is being adjusted. A duodenal tube is attached to the long glass tube and a smaller rubber tube, attached to the short glass one, drains into a bedside container. A mild suction is thus produced on the duodenal tube and the contents of this portion of the intestines are being drawn into the flask attached to the head of the bed. The advantages of this method over the old syringe method are too patent to need further description.

In another corner of this ward a colonic irrigation is being administered. The mattress of this bed has been supported by properly fitting boards and a real irrigation of the colon is being performed rather than the usual low enema which often results while the nurse and the doctor delude themselves that the upper portion of the large intestine is being reached.

As meal time approaches visitors are requested to leave the medical ward, cubicle curtains are drawn and the orderly and inoffensive procedure of bedpan hour takes place. Round making has been performed and ward dressings and medical minor surgery have been done so that no distracting services are required of the nurse when the noon meal arrives.

Blood Transfusion Technique Is of Interest

Inspection of the medical department is next. In an adjacent room a blood transfusion is taking place. This valuable procedure is much abused in many hospitals. The dramatics of the practice appeal to the public and to the physician. In this particular instance, however, the presence of a severe essential anemia requires the transference of blood. In anemia, toxemia and certain other infectious low resistance states, blood transfusion is often life saving.

The visiting party, having been gowned and capped, is invited to observe the transfusion tech-

nique. Absolute order and decorum reign as in a major operating room. A graduate licensed physician and two interns are the operators. A trained graduate nurse is assisting. All are capped, gowned, masked and gloved. The donor, properly typed and Wassermannized, is in readiness. His street clothing has been removed and a hospital gown has been donned. We are informed that the transfusion team has been well trained by a competent instructor and that no one is permitted to perform this operation until his training has been completed.

An Atmosphere of Efficiency Prevails

Such an orderly procedure is in sharp contrast to the hasty, unskillful and untidy technique so often observed. For instance, it is not always the practice to perform a Wassermann test to make certain that the donor is free from luetic infection. Such an oversight is unforgivable for there are bona fide instances in the literature in which syphilis has been contracted in this manner. It is a wise precaution to have several members of the hospital personnel typed and serologically tested in order that a donor may be available should an emergency arise at a time when no professional donor can be secured.

In this instance a direct transfusion by modern apparatus is to be performed. A cannula is inserted in the vein of the donor and another in that of the recipient. By the simple manipulation of the plunger of a 5 c.c. syringe, 350 c.c. of blood is quickly transferred from the donor to the ailing recipient. There is no frantic haste, no display of sanguineous beakers, gauze or instruments and no hurried passing of syringes. An atmosphere of scientific quiet and efficiency prevails. The time required for the injection of the blood is about ten minutes. The visitors leave this demonstration resolved to return to their respective hospitals and take immediate steps to revise and improve their techniques of blood transfusion.

A brief return to the wards is made to observe the methods of waste control employed following the noonday meal. The nurses serving the meal are in charge of a graduate supervisor. Each patient was told of the menu for the day and was asked to specify the food he desired. Only moderate quantities of food were placed on the plates. Very little garbage is observed and it is explained that careful cooperation between the supervisor and the diet kitchen makes possible the serving of each patient's meal for about eight cents.

Those in search of economical measures will do well to remember that many a dollar can be saved by supervising closely the serving of trays. The policy of first serving small portions and then en-

couraging the patient to request a second helping is conducive to economy. Garbage weighing and a competitive comparison of departmental weight figures are recommended. A tidy plate is stimulating to the appetite, whereas the careless admixture of vegetables, meat and gravy so often observed in institutional wards is wasteful, slovenly and, above all, unfair to the fickle appetites of convalescing patients.

The head nurse in the medical department informs the visitors that all blood specimens were taken in this ward before 9 a.m. This practice obviates the distressing delay so often observed in the serving of breakfasts to patients undergoing study. "No Breakfast" cards are employed to prevent the inadvertent serving of food to patients from whom blood specimens are to be taken. All minor medical surgery is performed in a space outside the ward so that other patients are not alarmed by the outcries of those receiving treatment.

Inspection of the ward tray room is incidentally made. Here is noted the presence of sterilized

trays for hypodermoclysis, intravenous injection, venoclysis, colonic irrigation, minor surgery and catheterization. No delay is experienced when any one of these sterilized trays is required promptly.

It is explained that two small rooms adjacent to the medical ward are frequently employed for the isolation of patients with infectious diseases. A case of erysipelas is under treatment in one room. Seasoned administrators and physicians testify that they have never observed a secondary case of erysipelas following this practice. A patient suffering with typhoid fever occupies the second room. The usual fly screening of the bed is not needed because no insects are present.

The visit is now completed and the party is conducted to the point at which the tour began, where the superintendent courteously takes his leave. In this inspection the visitors have noted the orderly and courteous reception of visitors, the well trained personnel, the modern method of injecting intravenous solutions, the proper technique for blood transfusion and the efficient serving of food. They have been more than repaid for the time spent.

Occupancy Varies With Hospital's Size, Report Reveals

The average occupancy of hospitals varies directly with the size. The larger the hospital, in general, the higher the occupancy figure. The big difference in occupancy rates between hospitals controlled by state and local governments and nongovernmental hospitals is found among the hospitals with more than fifty beds and more particularly among

those with more than 100 beds, according to data for 1932 gathered by the committee on hospital income and bed occupancy of the American Hospital Association. The detailed data are given in the accompanying table, which has been prepared by the committee.

The Hospital Can Learn From the Commercial World

One of the outstanding characteristics of the hospital situation in America today is the prospect of almost unlimited growth, and as in other American institutions, much time and money are wasted because many of the implications of this possibility of expansion are ignored, says Albert E. Sawyer, office manager, University of Michigan Hospital, Ann Arbor, in discussing problems of hospital management in "Michigan Business Studies," a booklet published by the University of Michigan.

"We have a habit of plunging into a situation with only the immediate future in mind," Mr. Sawyer says. "We build buildings and create business systems that may be adequate for the time being, but which are soon outgrown and prove to be a source of difficulty. It is possible to avoid this wasted effort in connection with business methods. An accounting system can be designed for a fifty-bed hospital that will grow with the institution and require no fundamental changes, even though the number of beds should ultimately exceed one thousand. This is possible, however, only if the initial plans are laid with great care and consideration by experts in the business field.

"It is always a safe policy for the hospital executive to seek assistance from the commercial world before making his decisions in regard to accounting problems."

NUMBER OF HOSPITALS, BEDS AND AVERAGE PATIENTS AND PERCENTAGE OF OCCUPANCY IN "REGISTERED" GENERAL HOSPITALS IN FIFTEEN STATES¹ BY TYPE OF CONTROL AND SIZE OF HOSPITAL, 1932²

Control and Size	Number of Hospitals	Number of Beds	Average Patients	Pct. of Occupancy, 1932	Pct. of Occupancy, 1931
Federal					
100 beds or less	63	2,578	1,258	48.8	46.3
101 beds and over	25	19,676	14,890	75.7	71.1
Total	88	22,254	16,148	72.5	67.7
State and Local Government					
25 beds and less	62	1,189	517	43.5	48.4
26-50 beds	60	2,271	1,127	49.6	53.7
51-100 beds	47	3,568	2,167	60.7	59.3
101-300 beds	42	7,893	6,169	78.2	78.1
301 beds and over	31	29,326	25,851	88.2	82.5
Total	242	44,247	35,831	81.2	77.9
Nongovernment					
25 beds and less	487	7,578	3,160	41.7	46.0
26-50 beds	321	12,016	5,736	47.7	50.5
51-100 beds	339	25,885	13,877	53.6	58.7
101-300 beds	312	53,265	32,224	60.5	63.4
301 beds and over	56	23,837	15,341	64.4	67.9
Total	1,515	122,581	70,338	57.4	60.8
Grand Total	1,845	189,082	122,317	64.7	65.7
Total Registered General Hospitals in U. S.	4,305	395,543	250,495	63.3	64.4

¹New Hampshire, New Jersey, New York, Mississippi, North Carolina, Illinois, Michigan, Ohio, Iowa, Kansas, South Dakota, Arizona, California, Colorado and Wyoming.

²Data compiled from the Jour. Am. Med. Asso., pp. 911-972, March 25, 1933.

The Problem of the Month

Is the Eight-Hour Day for Nurses Desirable and Feasible?

MANY advantages are claimed for the eight-hour schedule for nurses and the plan is reported to be increasingly popular in hospitals scattered throughout the country. The system has been adopted in many instances in an attempt to relieve the unemployment situation among private duty nurses and to lessen the tax on nurses' health occasioned by unduly long working hours. It is held by many that the patients receive more efficient nursing service because the nurse is better rested.

What is your view on this subject? What advantages and disadvantages do you discover in the plan?

*Mildred Riese, Superintendent,
Orthopaedic Hospital-School, Los Angeles:*

"Each hospital has its own peculiar problems in this connection. The Hospital of the Good Samaritan, Los Angeles, adopted the eight-hour duty plan on June 1, 1929. Since then practically all the leading hospitals in Los Angeles have adopted the eight-hour plan for their nursing staffs, and also for their special nurses. In all the institutions the plan has been satisfactory for the patient, the medical staff, the nursing service, the administration of the hospital and the nurse herself.

"It seems only reasonable that nurses, due to their responsibilities, cannot give efficient service for a longer period than is considered practicable in other fields where the requirements are not so exacting. I should like to see a control study made to prove this point.

"At the Orthopaedic Hospital-School the change was made to an eight-hour day without increasing the number of nurses. A careful study was made to eliminate all false motions on the part of the nurses and, in addition, the increased vitality of the nurses made it possible for them to give more efficient service. A marked change resulted in the attitude of the nurses; they were able to maintain cheerful expressions during their working hours.

"Since the American Hospital Association is in accord with the spirit of the NRA, the adoption of the eight-hour day is an opportunity for hospitals to carry out some of the principles of the act and thus cooperate with President Roosevelt."

*Sally Johnson, Principal,
Training School for Nurses,
Massachusetts General Hospital, Boston:*

"Does any one believe that any worker should be on the job eleven hours a day—twelve hours, minus two meal periods of a half-hour each? Is not this custom an inheritance that nursing has received from the religious orders, the members of which devoted their entire lives to service?

"We of the hospital group accept eleven hours because we think that any other plan would add great expense to patients who are already in physical, mental and financial distress. On the other hand, how many times during his life does the average person have need for a graduate nurse? In some instances the shortened day might add to the 'distress' of the patient. In many instances it would not. After the first acute illness a patient often does not require care for the full eleven hours. Such care as is needed could often be given by the floor duty nurse without adding a great deal to her responsibility.

"I believe that hospitals should ask themselves whether they have any right to condone a situation in which a large group of women are expected to work eleven hours. It is true that they do not 'work' the entire eleven hours, but they must be on call, alert, and have one eye on the 'buzzer.' They certainly are not free for recreation.

"A common criticism of the graduate special is that she is 'limited'—she knows nothing of outside affairs, she does not read, she does not make contacts with other people, she does little to add to her general cultural background. How can she? She leaves home at six in the morning and if she is fortunate she gets back by eight at night. If

she is off duty, she must stay where she can hear the telephone ring, and she is always in suspense. In my opinion no other worker lives in as difficult a situation as the private duty nurse. I have had fine women within this group tell me that it is not living, it is only existing.

"It is hoped that the economic situation will soon be back to normal. There is already evidence that prices are rising. When that time comes nurses will begin to talk about getting back to \$6 a day. Instead of talking about that I believe they should consider an eight-hour day, at \$5 a day.

"Several hospitals have reduced the day to eight hours. Even at that the week totals fifty-six hours, ten hours beyond the old forty-eight hours which used to be talked about before the days of the NRA.

"Our thinking would probably be considerably clarified if we knew the actual experiences of hospitals where the working day has been reduced. Such a reduction probably would add to the expense of floor duty nursing, but it probably would not increase it by any great amount, when the entire hospital budget is considered."

*Eleanor R. Chapman, Superintendent,
Hospital of the Good Samaritan, Los Angeles:*

"The system of eight-hour duty inaugurated at the Hospital of the Good Samaritan, Los Angeles, in 1929, has been in effect since that time and is extremely satisfactory. According to the schedule used, each nurse remains on duty for an eight-hour period, starting usually at 7:00 a.m. The starting time, however, is arranged according to the wishes of the patient. A patient may have one, two or three nurses as he wishes or requires. From the standpoint of expense, nursing at the present rate is no more expensive for the patient than when the twelve-hour service was in effect.

"No additional fee is collected for the nurses' board. Nurses are permitted time for meals while on duty. They plan their meals so that they have only one meal at the hospital, which they buy themselves. This may be obtained in the hospital cafeteria at a nominal price.

"The hospital has forfeited the fees formerly collected from the patient for nurses' board and this no doubt is a bone of contention for many hospitals that contemplate an eight-hour service."

*Dr. B. Henry Mason, Superintendent,
Waterbury Hospital, Waterbury, Conn.:*

"During this period of economic stress when there are more graduate nurses in most communities than there is employment for, it is obvious that eight-hour rather than twelve-hour duty will

aid greatly in distributing the work available.

"More than eight-hour consecutive duty is not conducive to continued good health for the average person. Long hours of duty tax the physical and mental strength with a resultant lowering of the individual's resistance to acute infections. This is particularly true of student nurses. The more widespread employment that results from eight-hour duty serves to reduce the nervous strain on graduates who are on the call list. It also offers the graduate an opportunity to read, study and engage in extracurricular activities which broaden her knowledge and usefulness. Although the nurse's income is slightly less per day under the eight-hour plan, the records show that she works more days in a given period.

"It is my opinion that the eight-hour duty plan yields better nursing care for the patient. The healthy, better integrated nurse is certainly more acceptable."

*Sister Mary of St. Elizabeth, Superintendent,
French Hospital, New York City:*

"The eight-hour day for private duty nurses was adopted by the French Hospital in November, 1932. The change from the twelve-hour day was made without difficulty or confusion. At the end of the first year of operation patients, doctors and nurses seem to be almost unanimous in their approval of the new schedule.

"Two possible objections were raised in the beginning, first, that the patient would dislike having three different nurses in twenty-four hours, and second, that it would result in an increased cost to the patient. Patients who have used the system, however, say it is an advantage to have three alert and responsive nurses rather than two who are overtired.

"The eight-hour plan has not resulted in extra cost to the patient. Each nurse is paid \$5 for an eight-hour period and the hospital receives \$0.75 for each nurse for two meals, or in the case of three nurses, \$2 for the twenty-four-hour period.

"A comparison has been made between the first five months' use of the eight-hour plan and the corresponding five months of the preceding year when the twelve-hour plan was in effect. Although there was a 13.6 per cent decrease under the eight-hour plan in the average earnings of the individual nurse, there was a decrease in her working hours of 19.6 per cent. There was an average increase of 1.1 calls per nurse, with 12.9 per cent more nurses on the registry. In the five-month period of twelve-hour duty there were 679 calls for nurses and in the corresponding period of eight-hour duty there were 879 calls, giving better distribution."

A. C. of S. Adds 106 Hospitals to Approved List

THE American College of Surgeons surveyed 3,554 hospitals of twenty-five beds and over during 1933 in its hospital standardization program. A total of 106 hospitals were added to the approved list during the year. Of this number forty-seven were fully approved and fifty-nine were provisionally approved.

Of the 3,554 hospitals surveyed this year, 2,384, or 67 per cent, were fully or provisionally approved—2,158, or 60.7 per cent, being fully approved and 226, or 6.3 per cent, being provisionally approved. The number of hospitals not approved was 1,170,

or 33 per cent of the total. Twenty-three hospitals were removed from the approved list during 1933. Eight of the removals were due to the fact that the hospital was closed during the year.

Each year has seen an increase in the number of hospitals in the United States and Canada meeting the requirements of the minimum standard. Only 692 institutions were surveyed in 1918. The percentage of approval has increased from 12.9 per cent in 1918 to 67 per cent in 1933.

The hospitals listed on the next page were added to the approved list during the year 1933.

SUMMARY STATISTICS SHOWING NUMBER AND PERCENTAGE OF APPROVED HOSPITALS

1. Hospitals of 100 beds and over:

Surveyed	1,603
Fully approved	1,440
Percentage fully approved.....	89.9
Provisionally approved	65
Percentage provisionally approved.....	4.0
Not approved	98
Percentage not approved.....	6.1
Total fully and provisionally approved.....	1,505
Total percentage fully and provisionally approved	93.9

2. Hospitals of 50 to 99 beds:

Surveyed	1,044
Fully approved	549
Percentage fully approved.....	52.6
Provisionally approved	110
Percentage provisionally approved.....	10.5
Not approved	385
Percentage not approved.....	36.9
Total fully and provisionally approved.....	659
Total percentage fully and provisionally approved	63.1

3. Hospitals of 25 to 49 beds:

Surveyed	907
Fully approved	169
Percentage fully approved.....	18.6
Provisionally approved	51
Percentage provisionally approved.....	5.6
Not approved	687
Percentage not approved.....	75.8
Total fully and provisionally approved.....	220
Total percentage fully and provisionally approved	24.2

4. Government Hospitals:

(a) Army:	
Surveyed	5
Fully approved	5
Percentage fully approved.....	100.0
(b) Navy:	
Surveyed	16
Fully approved	16
Percentage fully approved.....	100.0
(c) Public Health Service:	
Surveyed	25
Fully approved	25
Percentage fully approved.....	100.0
(d) Veterans Bureau:	
Surveyed	70
Fully approved	70
Percentage fully approved.....	100.0

5. Other Countries:

Thirty hospitals of other countries have been awarded full approval, and are included in the List of Approved Hospitals for 1933.

SUMMARY

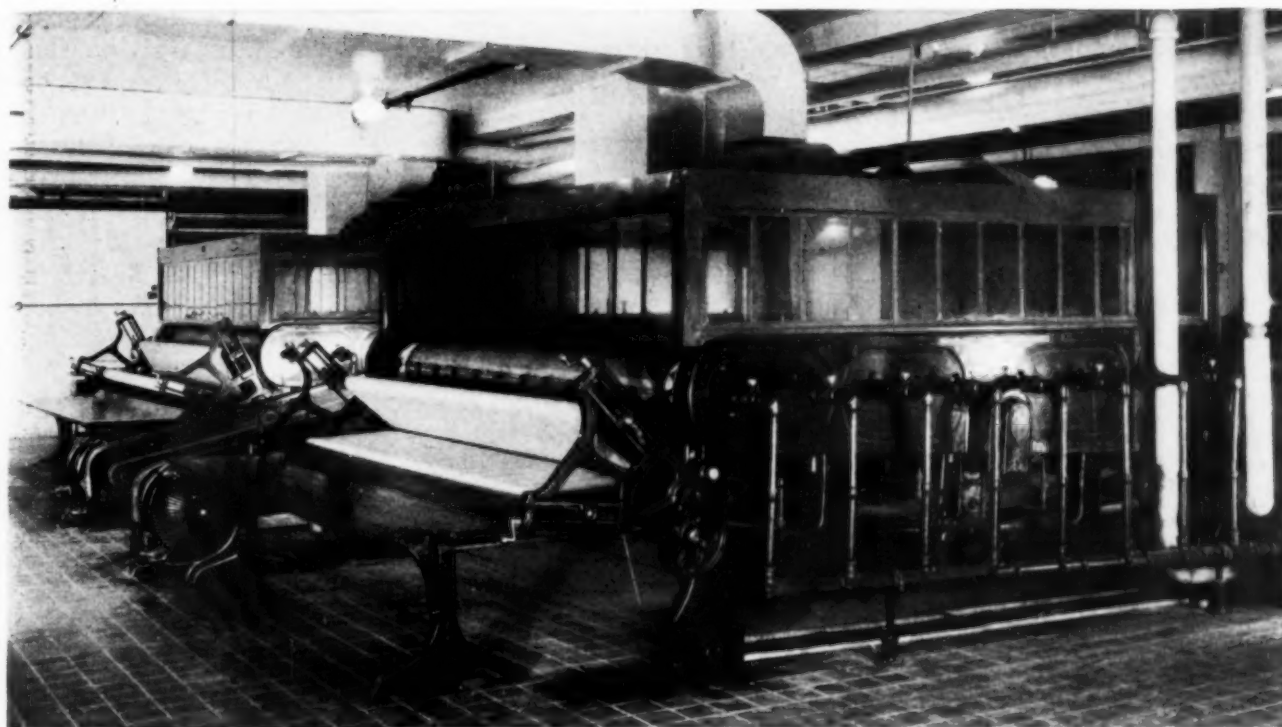
Total surveyed	3,554
Total fully approved	2,158
Total percentage fully approved.....	60.7
Total provisionally approved.....	226
Total percentage provisionally approved.....	6.3
Total not approved	1,170
Total percentage not approved.....	33.0
Total fully and provisionally approved.....	2,384
Total percentage fully and provisionally approved:	
Hospitals 100 beds and over.....	93.9
Hospitals 50 beds and over.....	81.7
Hospitals 25 beds and over.....	67.0

Hospitals Approved During 1933 by A. C. of S.

<i>Name of Hospital and Location</i>	<i>Capacity</i>
*Southern Navajo General Hospital, Fort Defiance, Ariz.	104
*Burnett Sanitarium, Fresno, Calif.	140
Mission Hospital, Huntington Park, Calif.	43
St. Mary's Long Beach Hospital, Long Beach, Calif.	60
Palo Alto Hospital, Palo Alto, Calif.	93
*San Luis Obispo General Hospital, San Luis Obispo, Calif.	68
*South San Francisco Hospital, So. San Francisco, Calif.	36
*Mendocino State Hospital, Talmage, Calif.	2400
*Mt. Airy Sanitarium, Denver, Colo.	45
*Swedish National Sanatorium for Tuberculosis, Englewood, Colo.	97
*Woodcroft Hospital, Pueblo, Colo.	125
Modern Woodmen of America Sanatorium, Woodmen, Colo.	250
*Newington Home for Crippled Children, Newington, Conn.	200
Veterans' Administration Hospital, St. Petersburg, Fla.	509
Centro Asturiano Hospital, Tampa, Fla.	75
Woodlawn Hospital, Chicago, Ill.	166
Peoria Municipal Tuberculosis Sanitarium, Peoria, Ill.	92
*Springfield Hospital, Springfield, Ill.	100
*Sycamore Municipal Hospital, Sycamore, Ill.	25
Boehne Tuberculosis Hospital, Evansville, Ind.	115
*Henry County Hospital, Newcastle, Ind.	55
*Wabash R. R. Employees' Hospital, Peru, Ind.	50
*Healthwin Hospital, South Bend, Ind.	209
*Sartori Memorial Hospital, Cedar Falls, Iowa.	42
*Decorah Hospital, Decorah, Iowa.	36
*Lutheran Hospital, Fort Dodge, Iowa.	56
*Presbyterian Hospital, Waterloo, Iowa.	45
*Central Maine Sanatorium, Fairfield, Maine.	188
*Queen's Hospital, Portland, Maine.	60
*Knox County General Hospital, Rockland, Maine.	73
*Baltimore Eye, Ear, Nose and Throat Hospital, Baltimore, Md.	60
*Board of Health Hospital, Brookline, Mass.	55
*Marlborough Hospital, Marlborough, Mass.	80
Hospital of the State Prison Colony of Norfolk, Norfolk, Mass.	75
Webster District Hospital, Webster, Mass.	33
Belmont Hospital, Worcester, Mass.	150
*Mercy Hospital, Grayling, Mich.	35
Firmin Desloge Hospital, St. Louis, Mo.	262
Mary Lanning Memorial Hospital, Hastings, Nebr.	100
Peterborough Hospital, Peterborough, N. H.	31
Bound Brook Hospital, Bound Brook, N. J.	38
*Newton Hospital, Newton, N. J.	50
*Warren Hospital, Phillipsburg, N. J.	75
*Southwestern Presbyterian Sanatorium and Hospital, Albuquerque, N. Mex.	140
*Stephen B. Van Duzee Hospital, Gouverneur, N. Y.	25
Stony Wold Sanatorium, Lake Kushaqua, N. Y.	145
Little Falls Hospital, Little Falls, N. Y.	45
Loomis Sanatorium, Loomis, N. Y.	202
*Medina Memorial Hospital, Medina, N. Y.	34
Metropolitan Life Insurance Company Sanatorium, Mt. McGregor, N. Y.	364
Doctors Hospital, New York City.	325
*Harlem Eye and Ear Hospital, New York City.	50

*Provisionally approved.

<i>Name of Hospital and Location</i>	<i>Capacity</i>
*St. Francis Hospital, Port Jervis, N. Y.	61
John T. Mather Memorial Hospital, Port Jefferson, N. Y.	70
New York State Hospital, Ray Brook, N. Y.	310
National Variety Artists Sanatorium, Saranac Lake, N. Y.	100
Good Samaritan Hospital, Suffern, N. Y.	48
Trudeau Sanatorium, Trudeau, N. Y.	185
*St. Agnes Hospital, White Plains, N. Y.	117
*Yadkin Hospital, Albemarle, N. C.	32
Clinic Hospital, Greensboro, N. C.	45
Wesley Long Hospital, Greensboro, N. C.	55
*State Hospital at Raleigh, Raleigh, N. C.	2250
Devils Lake General Hospital, Devils Lake, N. D.	46
North Dakota State Hospital for Insane, Jamestown, N. D.	1793
*Good Samaritan Hospital, Rugby, N. D.	53
*Good Samaritan Hospital, Williston, N. D.	42
*Community Hospital, Berea, Ohio.	36
*St. Joseph's Hospital, Carbondale, Pa.	118
Fitzgerald Mercy Hospital, Darby, Pa.	244
State Hospital for Crippled Children, Elizabethtown, Pa.	100
*Latrobe Hospital, Latrobe, Pa.	85
*Riverview Hospital, Norristown, Pa.	53
*Homeopathic Hospital of Pottstown, Pottstown, Pa.	62
*Lemos B. Warne Hospital, Pottsville, Pa.	84
*Quakertown Community Hospital, Quakertown, Pa.	54
*Locust Mountain State Hospital, Shenandoah, Pa.	80
*Wyoming Valley Homeopathic Hospital, Wilkes-Barre, Pa.	86
State Infirmary, Howard, R. I.	997
Veterans' Administration Hospital, Columbia, S. C.	304
*St. Francis Hospital, Greenville, S. C.	60
*Aberdeen Good Samaritan Hospital, Aberdeen, S. D.	42
*Rosebud Agency Indian Hospital, Rosebud, S. D.	42
Takoma Hospital and Sanitarium, Greeneville, Tenn.	46
*Martha Jefferson Hospital, Charlottesville, Va.	60
*State Colony for Epileptics and Feeble-Minded, Colony, Va.	950
*Pulaski Hospital, Pulaski, Va.	39
Firland Sanatorium, Richmond Highlands, Wash.	310
United States Marine Hospital, Seattle, Wash.	250
Raleigh General Hospital, Beckley, W. Va.	60
*St. Joseph's Hospital, Buckhannon, W. Va.	42
*St. Francis Hospital, Charleston, W. Va.	125
*Hinton Hospital, Hinton, W. Va.	75
Veterans' Administration Hospital, Huntington, W. Va.	210
Grace Hospital, Welch, W. Va.	65
*Williamson Memorial Hospital, Williamson, W. Va.	100
*Memorial Hospital, Burlington, Wis.	35
*Sheboygan Memorial Hospital, Sheboygan, Wis.	116
Wyoming Tuberculosis Sanatorium, Basin, Wyo.	33
Wyoming State Hospital, Evanston, Wyo.	480
Wyoming General Hospital, Rock Springs, Wyo.	108
St. Boniface Sanatorium, St. Vital, Manitoba.	268
Hamilton Memorial Hospital, North Sydney, Nova Scotia.	54
Niagara Peninsula Sanitarium, St. Catharines, Ont.	85
*Welland County General Hospital, Welland, Ont.	62
Hôpital Saint-Luc, Montreal, Quebec.	418



New Method of Operation Reduces Hospital's Power Costs

By STEWART HAMILTON, M.D.

Director, Harper Hospital, Detroit

EVERY hospital superintendent is confronted with many complicated problems, among which are those associated with the power and mechanical divisions of the institution.

The power and mechanical equipment at Harper Hospital, Detroit, has been in operation for a period of from four to twenty years. The service and conditions in general pertaining to the operation of this institution are modern in every respect. The hospital operates and maintains complete service with only one exception—the electric power is purchased from a central station as primary current and converted for distribution at the point of utilization.

There are 605 beds available for the use of patients. There are 215 beds allotted to the staff. Between 2,500 and 3,000 meals are served daily.

The ground space actually covered by the hospital buildings is 113,114 square feet, the floor space is 600,569 square feet, and the cubic content of the building is 7,494,320 cubic feet.

Realizing the difficulties of increasing capital investment in subnormal times for the purchase

of modern machinery, the hospital directors focused their attention on improving facilities to increase plant efficiency. Tests were conducted to accumulate data to enable a scientific study to be made of individual operation, and a compromise plan of medium capital investment was adopted. This called for minor changes in the old equipment and major changes in the method of operation. The result was a substantial reduction in operating costs without affecting the high grade service demanded by the hospital for the safety and comfort of its patients and staff.

The study revealed that certain duties assigned to the power and mechanical men had become merely daily routine. They were in the habit of making frequent repairs to the equipment on the basis that little or nothing could be done to obviate the necessity for this sort of maintenance. This attitude, although sincere, proved costly and a campaign was started to war against the causes of equipment failure. The campaign was enthusiastically supported by the personnel and the results of the cooperative effort were splendid.

The boiler plant, which is an important phase of hospital operation, presented an interesting study. Since fuel consumption represented a large portion of the operating expense, an effort was made to reduce this item. The result was a substantial reduction in fuel consumption through increased boiler economy.

The boiler plant consisted of six 2,250-square foot water tube boilers fired by underfeed stokers. Four of these boilers had been in service for twenty-three years, and two of them for approximately six years. No mechanical means was available for handling the coal. It was necessary to shovel the coal from the bunker to the boiler room floor and thence to the stoker hoppers. This procedure occupied practically all of the fireman's time, and he was unable to give proper attention to the method of firing. Also, the absence of metering equipment made boiler operation entirely a matter of guesswork.

Coal Handling Time Greatly Reduced

It was apparent from the preliminary study that all six boilers were not required for reliable operation of the plant. Consequently, two of the older boilers were opened, drained and removed from service entirely. This eliminated insurance and maintenance expense on these units. A series of evaporation tests conducted on each boiler under actual operating conditions indicated the possibility of a large saving through increased boiler efficiency and an improved method of operation.

An improved method of coal handling was

deemed necessary. Therefore, a modern conveyor system with weighing apparatus was installed. This equipment was purchased during the low price era and the savings effected during the first year of operation have more than offset the cost of the equipment. With coal handling time reduced from hours to a matter of minutes, it was possible to employ higher caliber men in the boiler plant at only a slight increase in labor cost. Increased efficiency resulted immediately. The percentage of CO₂ in the flue gas was built up to 11.5 per cent and maintained at that level.

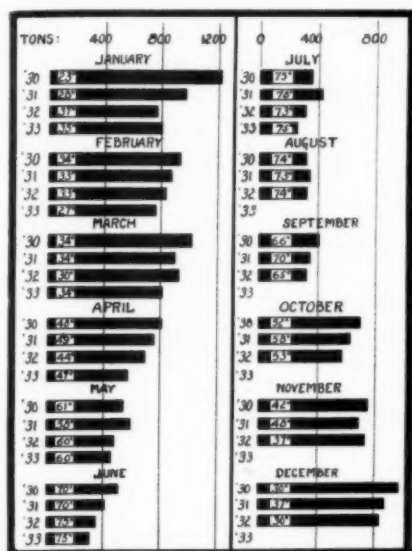
An accurate check on daily boiler efficiency is now obtained by weighing the coal as it is fed to the boilers. This also facilitates the making of boiler evaporation tests. Data obtained from the evaporation tests determined the most economical ratings, which now average close to 125 per cent, and seldom are over 150 per cent. Coal burned per square foot of grate surface does not exceed 24 pounds.

Tests were conducted over a period of months in order to determine what type of coal would result in the lowest fuel cost and maintenance per 1,000 pounds of steam. Final purchases were based on the results of these tests.

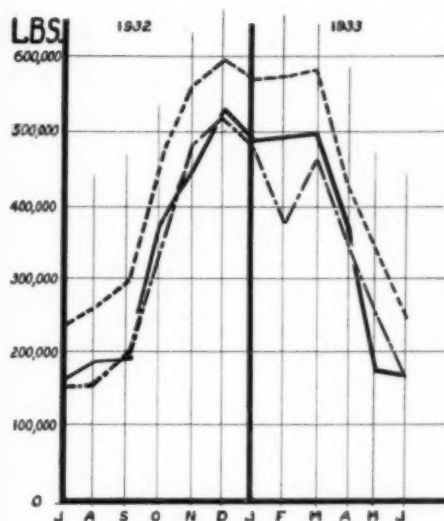
Considerable attention was given to feed water conditioning in an effort to eliminate the necessity for frequent cleaning of the boilers and also to stop corrosion and pitting of the boilers and piping throughout the hospital. The removal of contaminating agencies from the boiler feed water has eliminated ailments in the boilers and has re-

TABLE I—POWER AND STEAM DISTRIBUTION, JULY 1, 1932 TO JULY 1, 1933

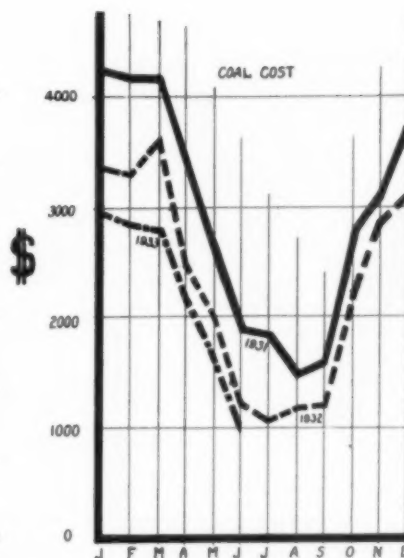
<i>Items</i>	<i>Pounds of Steam Used</i>	<i>Steam Cost Without Fixed Charges</i>	<i>Gallons of Water Used</i>	<i>Cost of Water</i>	<i>K.W.H. of Electric Power Used</i>	<i>Cost of Electric Power</i>
Heating buildings	51,645,000	\$15,024				
Domestic hot water.....	22,093,000	6,427	26,604,000	\$ 742.00		
Hot water pumping (heat equivalent in pounds)....	190,000	55			7,800	\$ 101
Cold water pumping (heat equivalent)	411,000	120	47,355,000	1,321.00	27,800	359
40 pound general service steam	20,549,000	5,978				
Laundry	8,711,000	2,534	9,610,000	268.00	140,800	1,816
Refrigeration (heat equivalent)	1,120,000	326	22,590,000	630.00	220,440	2,844
Boiler auxiliary (heat equivalent)	7,045,000	included in steam cost				
Drips	4,904,000	1,427				
Power plant, miscellaneous and light					46,190	596
Elevators					118,080	1,523
Ventilation			576,000	16.00	110,100	1,420
Compressed air			1,793,000	50.06	30,840	398
X-ray department			2,190,000	61.00	68,400	882
Operating rooms	included	included	included		30,100	388
Buildings—lighting, misc. fans, heaters, toasters, etc.	included	included	included		528,200	6,814
TOTALS.....	116,668,000	\$31,891	110,718,000	\$3,088.06	1,328,750	\$17,141



Monthly coal tonnage and temperature.



Coal consumed during each shift.



A comparison of coal costs.

duced pipe maintenance. The forming of scale in the boiler tubes has been practically stopped through modern feed water treatment and daily checks in the form of testing the water each day. The engineer can do this work in a few moments.

The hospital's efforts in this direction have been rewarded with a 7 per cent increase in boiler efficiency and a maintenance cost of less than one cent per 1,000 pounds of steam generated. There was also a substantial reduction in coal price per ton and a greatly improved operating condition. To illustrate, in July, 1932, the hospital burned approximately 33 per cent less coal than in July, 1931. In 1933 the tonnage was 19 per cent under that for 1932.

Generated Versus Purchased Electric Power

Harper Hospital does not generate its electric power. All power is purchased. Possibly no single branch of the hospital's mechanical division has been subject to as much discussion as has this one. The current is supplied by a duplicate set of feeders, each of which is capable of carrying a full load. These feeders supply power at 4,600 volts to the transformers and it is distributed at 220 volts and 110 volts. The main motor and elevators in the hospital are operated on a D.C. circuit. This current is supplied from rotary converter sets and distributed at 230 volts.

A 100 per cent stand by prime mover and generators would be required if the hospital were to generate its own power. This would mean an investment of approximately \$40,000 for engines and electrical equipment. No additional boiler capacity would be required. Steam could be supplied from the present boiler equipment at 175 pounds pressure at a cost of \$0.2907 per 1,000

pounds, not including fixed charges. A comparison is offered on this basis in Table II.

The question as to whether or not the hospital should install its own engine and generating equipment has been decided in the negative. It was recognized that the local utility company supplied a reliable source of power, and that the only advantage that would accrue to the hospital from having its own generators would be the monetary saving. Taking into account the dirt nuisance that would result from burning more fuel to generate electric power, the conclusion was reached that the 8 per cent return on the investment is not sufficient to warrant the installation of this equipment.

Heat is supplied to all the hospital buildings by a vacuum system of steam heating. The system includes 88,550 square feet of direct and indirect radiation. Part of the heating equipment was installed in the nineteenth century, additional radiation being added as new buildings were erected.

Changes in Heating System Cut Fuel Costs

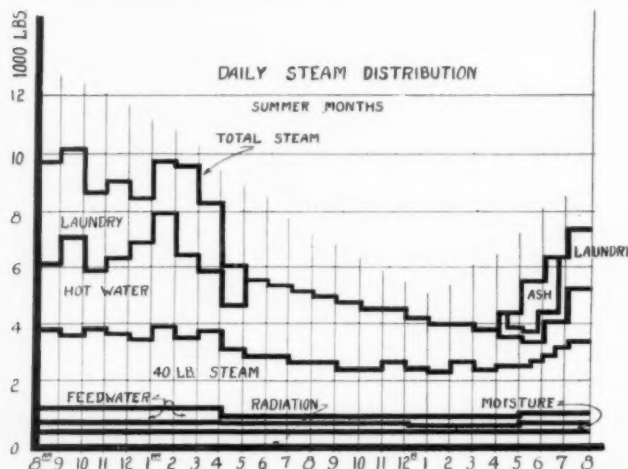
Since complications develop even in many modern heating systems, it is reasonable to expect that a group of buildings built twenty years ago and subsequently enlarged would offer many difficult problems in heat distribution and control.

Annoyance and discomfort due to frailties of a heating system cannot be tolerated in a hospital. In addition to proper control of temperature required for different buildings or portions thereof, the system must function without noise.

A centrally controlled system requires perfect distribution if economic heating is to be obtained. Engineers must acquaint themselves with the restrictions and obstacles peculiar to their particu-

lar plants in order to eliminate difficulties that are bound to develop in systems constructed over a period of years.

As the result of complaints of radiator and pipe noise, it was decided during the winter of 1932 to overhaul the hospital's heating system completely. Temperatures taken in the return mains from various buildings indicated excessive steam leakage in some sections. The vacuum at return



pumps in the power house and at the vacuum pumps in other buildings could not be raised above one or two inches without a large amount of cold water. To remedy this condition, the 4,800 radiator traps in the system were tested. These tests were made on a special radiator equipped with a thermometer between the radiator and the trap so that the temperature at which the trap opened and discharged could be readily observed. Traps that retained too much water in the radiator and traps that leaked steam were repaired if possible, or discarded. More than 350 defective traps were discarded. After completion of this work, a vacuum as high as twenty inches could be raised, depending on weather conditions.

Several main traps were found to be partly filled with oil and dirt, which prevented proper draining and caused pipe hammer. An efficient oil separator was purchased and installed in the exhaust steam main. This was done to eliminate the possibility of a boiler accident due to oil insulation, and also to avoid future filling up of the pipes with oil.

Proper conditioning of the boiler feed water has prevented "carry over" of solids into the heating system; clogging of traps has consequently been eliminated.

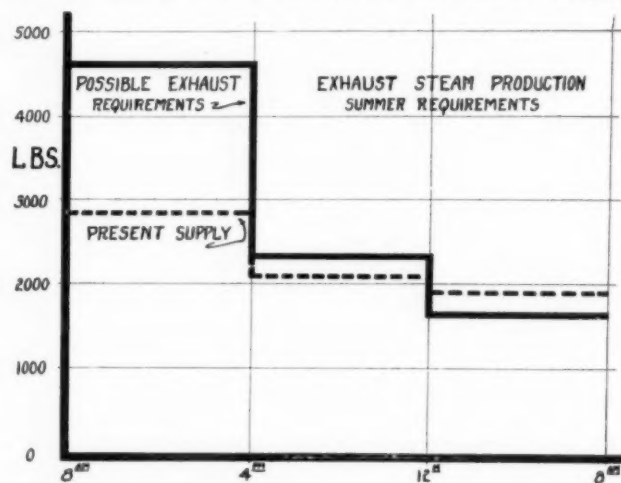
Improved conditions have made it possible to use the vacuum pumps in the power plant for the whole system. Two vacuum pumps in other buildings have been disconnected with no loss of efficiency and at a saving in power. Slight changes

were made in the return mains in order to obtain air flow capacity.

Additional radiation was provided in isolated rooms, in order to avoid the necessity of carrying higher pressure on the heating mains to heat a relatively small area. Where formerly six to eight pounds of pressure was required for zero weather, the maximum pressure now needed is two pounds. Distribution of steam has improved so that it is now possible to heat all buildings with a pressure of one-half pound at the power plant supply main. In a large building that was recently constructed, a vacuum is carried in the supply main during mild weather.

Overheating of the buildings has been largely done away with, and, as a result, coal consumption has been lowered considerably. The accompanying coal consumption chart shows the coal tonnage variation, based on weather conditions. However, during the heating seasons of 1932 and 1933, coal tonnage dropped, due to a decrease in temperature. It is estimated that 300 tons of coal were saved in the heating months of 1932, and that an additional 300-ton decrease was effected in the heating months of 1933.

Due to the satisfactory results that have been obtained, we intend in the future to overhaul the heating system prior to each heating season. However, any future difficulties should be largely



mechanical and require few changes in design.

Lubrication is an essential service that often affords opportunities for improvement by effecting reduction in power and operating expense.

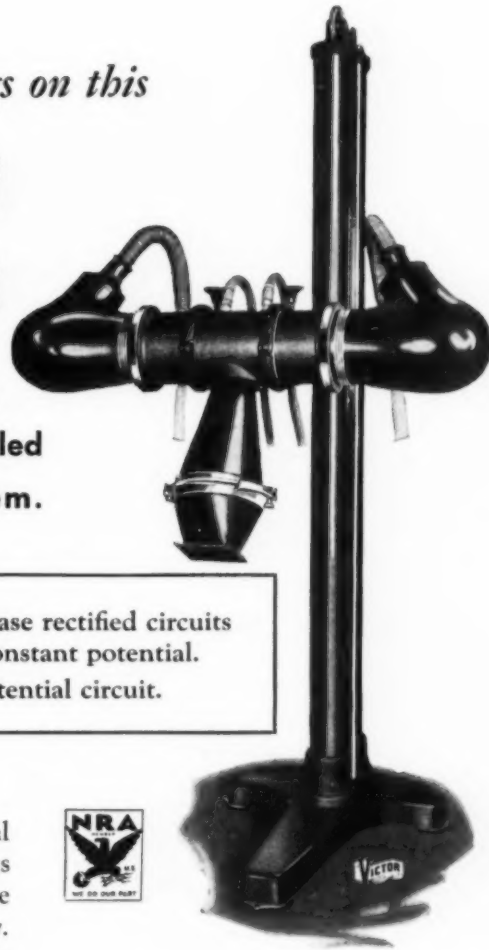
There is no standard specification for lubricants that will fit all services. The lubricant must be fitted to the particular service conditions, and these may, and usually do, vary from time to time. Therefore, in order to meet the widely differing demands occasioned by the special conditions under which the lubricant must function, such as friction wear or cylinder score, the selection of a

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Maximum protection against tube failure is realized through oil insulation, which also contributes to a compactness



that is surprising when the high capacity ratings are considered. The same oil is used, under a pressure system, to both cool the anode and immerse the tube. The use of insulating materials especially adapted to the requirements, minimizes any possibility of deterioration in the high tension cables.

And so again the principle of operating the x-ray tube in oil establishes a new high mark in efficiency of x-ray equipment.

In your consideration of facilities for radiation therapy, do not overlook the very definite advantages you will realize through using this apparatus. Full particulars on request.

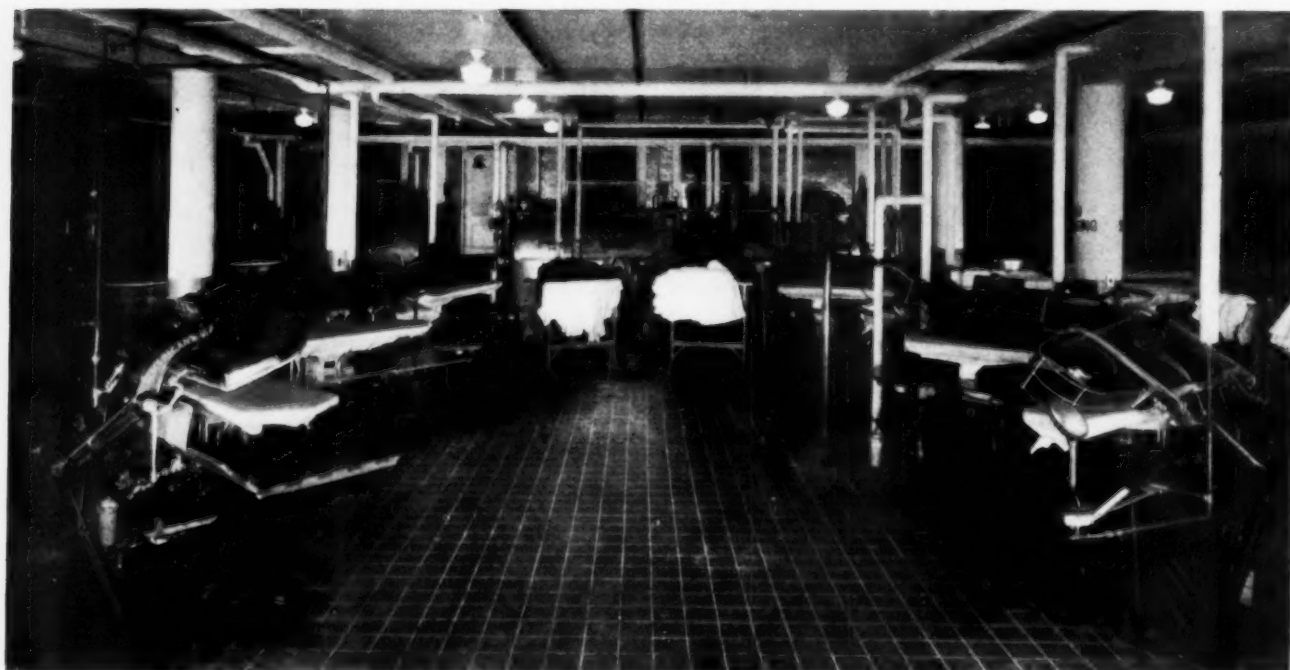
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lubricant must be made based on the characteristics of the component oils that govern the essential properties of effective lubricants.

It is the experience of Harper Hospital that oil will cause considerable damage if permitted to circulate in the exhaust steam system. Controls, thermostats and valves are affected by the presence of oil. The oil mulsifies and picks up dirt from the piping system, which is deposited on

small individual coolers used for special service, in the x-ray laboratory and in various other places where this type of machine proves more economical. Brine is circulated through pipes to all parts of the hospital from a large tank in the power plant.

About a year ago the hospital was confronted with the possibility of having to replace the complete brine piping system, due to numerous leaks



The hospital laundry renders complete service and handles approximately 80,000 pieces of laundry a week.

the valve seats and causes leakage. The oil may cause extensive damage if allowed to return to the boiler. Frequent tests are conducted at the hospital to ascertain if traces of oil are passing through the separating equipment. In this way it was discovered that certain changes in rating on the steam generating equipment are responsible for oil passing through the separating equipment. Changes in the speed and load of certain machines are also contributing causes, it was found.

Further tests showed that the old separating equipment was highly inefficient at a certain velocity. Apparently the separator was installed to suit the line size instead of to suit existing conditions. A study was made of the maximum and minimum velocity, the rate of flow and other factors, and a new separator was installed. The new separator has worked splendidly and thus far no oil has passed the line purifier.

The hospital's refrigerating equipment consists of two CO₂ machines, a compressor type machine, a steam driven machine of twenty-five-ton capacity, a fifty-ton motor driven machine and twelve

and breaks in the piping. The expense of this replacement would have been prohibitive. The loss of calcium chloride and the damage to plaster and walls, however, also presented an unreasonable expense.

At that time the brine was circulated by means of a reciprocating pump. The capacity of the pump was such that it was necessary to operate it at too high a speed for smooth performance. The resultant shock in the pump and piping caused the weak sections of the pipe to break. A test of the brine showed an acid condition that accounted for excessive pipe corrosion. Piping in the higher buildings seemed to be affected most. Air leakage at the pump intake was found to be responsible for the acid condition of the brine.

A centrifugal pump was purchased to replace the reciprocating pump and the brine was treated with sodium chromate in order to arrest its corrosive action. Precautions were taken to prevent air leakage. As a result, no breakage has occurred in the pipes during the past nine months and only two leaks have developed.

Proper regulation of the brine flow at each of



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"I had always thought of hospitals as places you just had to endure.

"But really—this one's quite nice. They're so attentive in the little things that go to make one comfortable. Why, they even furnish me with individual cakes of Palmolive, and I simply can't use any other soap.

"You can imagine how pleased I was when I saw that familiar Palmolive label instead of some queer soap I'd never heard of before.

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Hospital.....Position.....

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This much olive oil goes into the making of every cake of Palmolive.



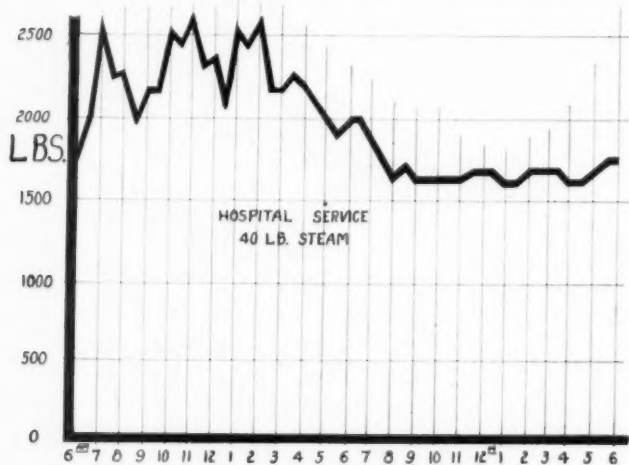
the stations has reduced the velocity and work required of the pump. The steam driven machine operates approximately eight months a year for the purpose of regulating exhaust steam requirements. The motor driven machine operates from twelve to fourteen hours a day. This machine is operated during the period when it will least affect demand current.

The cost of operating and maintaining this system has been satisfactorily reduced as a result of these changes.

The General Service Steam

The general service steam is maintained at a pressure of 40 pounds. This steam is used for sterilizing, cooking, blanket warming, bedpan warming, and in other ways. The demand for this steam is practically constant.

The piping reaches every floor of the hospital and, due to the length of the pipes, radiation losses are large. Leaking sterilizer water valves, leaking steam traps and careless sterilizer operation are among the causes of waste in this system. They may be prevented with proper maintenance.



The cost of regular inspection and prompt repair of leaks in the general service steam is small compared to the resultant savings.

Domestic hot water is supplied at 150° to 155° F. It was decided to operate at this temperature after completing tests wherein the condensate was metered while the water was maintained at a certain temperature over a period of a week. From 150° to 155° was found to be satisfactory in the hospital, and less steam was used at this temperature than at a higher temperature.

The hospital operates its own laundry, which renders complete service and handles approximately 80,000 pieces of laundry a week. The laundry is adjacent to the power plant, and is convenient for steam and water distribution. Flash heaters are used for hot water service. The elec-

TABLE II—THE COST OF PURCHASED ELECTRIC POWER AT HARPER HOSPITAL COMPARED WITH WHAT IT WOULD COST THE INSTITUTION TO INSTALL THE NECESSARY EQUIPMENT AND GENERATE ITS OWN ELECTRIC POWER

<i>Requirements for Generating Power</i>	
Investment required to generate power.....	\$40,000.00
Steam required to produce power.....	58,241,728 pounds
Exhaust steam demand per year.....	75,548,400 pounds
<i>Cost of Generated Power</i>	
Cost of steam, not including boiler room	
fixed charges	\$17,115.54
Fixed charges, at 13% of \$40,000.....	5,200.00
Extra labor required.....	3,000.00
	\$25,315.54
Value of exhaust steam utilized.....	10,388.00
Cost of electricity per year.....	\$14,927.54
Unit cost per k.w.h.....	\$ 0.0107
Value of engine exhaust wasted during summer months	\$ 3,402.00
<i>Purchased Power</i>	
Amount of electricity purchased.....	1,398,612 k.w.h.
Cost to purchase.....	\$18,172.57
Unit cost per k.w.h.....	0.013
Cost to purchase.....	\$18,172.57
Cost to generate.....	14,927.54
Saving to generate.....	\$ 3,245.03
Return on investment, 8 per cent	

trical equipment is modern and has individual motor control.

The water for the general laundry service is treated at the power plant. Approximately 22.5 pounds of soap are required each day. The total daily water consumption for washing and rinsing averages 28,000 gallons. About 3,000 gallons of water are used daily to wash back the softener, and 120 pounds of salt are used.

All ordinary maintenance and alteration work is done by the hospital's own workmen. Included on the hospital pay roll are carpenters, electricians, painters, plumbers and a machinist. At one time the hospital retained outside elevator inspection and repair service. It has been found more economical, and more satisfactory, however, for the hospital's own maintenance department to handle this work.

During the night, one man who serves both as an electrician and a plumber is available at all times for emergency calls. When not occupied on such calls, this man assists the engineer in the power plant.

Furniture repairs, new cupboards, splints, sheet metal, motor rewinding and special jobs, all are within the scope of maintenance in the hospital repair shops.¹

¹The author acknowledges his indebtedness to The Garrett Burgess, Inc., supervising engineers, for their contribution to this article.



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That isn't news. The greenest probe discovers it for herself about the time she's learning to take a pulse. She discovers also that the patient's disposition depends on little things. ■ A cup of coffee, for instance. If it's forbidden, and the patient has his heart set on it...well!...it doesn't seem like such a little thing then. ■ A growing number of doctors and nurses have a way of handling this situation. They bring in a steaming cup of Kellogg's Kaffee-Hag, a delicious blend of Brazilian and Colombian coffees. 97% caffeine-free. Safe in most cases where caffeine must be avoided. Ask the doctor.

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Dietetics and Institutional Food Service

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Training Dietitian Interns

By MAME T. PORTER

Chief Dietitian, Toronto General Hospital, Toronto, Ontario

THE desire to improve the training of young people is not new. Each generation has seen the need of better training and experience for those who later will assume responsibilities. It has always been easier to point out the reasons why improvement is necessary than to make valid these ideals in accomplishment. Whether it is more important to train a student in subject or in method is not a controversy peculiar to the dietetic profession—it is as broad as education itself.

In considering the training of student dietitians it is necessary to know what the student is being trained for, what are to be her duties and what type of education, training and experience will fit her best for her future responsibilities. While it is true that the duties of the dietitian vary according to the type of hospital she serves, yet all dietitians must be trained in certain fundamentals. She must learn to like people and must acquire an optimistic attitude toward life. She must develop qualities of leadership, executive ability and good judgment.

It has been said that a hospital is either a good one or a poor one, depending on the quality of its food service. The operating cost of the average hospital dietary department is from 25 per cent to 33 per cent of the total cost of operating the hospital. The administration of this department is not only a science, it is an art.

"What of Our Measuring Sticks?"

There has been a great deal of discussion regarding the kind of training afforded by hospitals. Attempts are being made to grade not only hospitals but the quality of training they provide for their student dietitians. We might ask, what of our measuring sticks? How good are they? Do they measure accurately or are new and better ones needed? It should be possible to evolve some measuring stick for the prospective dietitian. In times such as the present, when unemployment is widespread and the responsibilities of administration

are increased, it is wise to scan the past and plan wisely for the future.

It is unfortunate that more students are being trained at the present time than there is employment for in hospitals. Many students are being trained who are in no way suited to assume the arduous duties and responsibilities that the profession must carry if it is to assume its proper place in the nutrition program of the future. Regardless of other opportunities that may be open to members of the profession, the hospital needs the most capable dietitians because in no other field is there such a diversity of work and responsibility, and nowhere is there to be found a more stern taskmaster. The dietitian may either manage a restaurant, operate a tea room, teach in the schools, carry on research work, enter the commercial field or do social service work, but in the hospital she must do all of these things and in addition be responsible for the teaching and training of student nurses and student dietitians.

Needs of Patients Must Be Met

The ultimate success of the hospital dietitian lies in her efficiency and in the service she gives to the patients. She thus meets the hospital's need of economy and proper execution and in serving the patients well she pleases both the patient and the doctor. The price of such success is hard work, eternal vigilance and a willingness to forego social pleasure. The needs of patients must be met and dietitians should be trained for the ultimate purpose of improving the way in which these needs are to be most efficiently handled. Therefore, it is necessary that some method be developed to measure the ability of the dietitian as well as the quality of training that the hospital offers her.

The photographer knows that his plate must be sensitive to light and that it must be exposed to the subject to be photographed. He knows, too, that the exposure must be made carefully and that the plate must be carefully developed if a good

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negative is to result. In the same sense, education without exposure to life situations and to actual experience is unorganized, and the hospital has a right to some accurate measure of the quality of the "plate" which is to be exposed and developed under its direction. It has been said that people profit by their mistakes, but there is no place in the hospital dietary service for mistakes. A mistake made in the classroom may be corrected, but in the hospital, no matter whether the mistake is serious or not, it arouses the patient's anger, hinders and retards his progress. Diets must be calculated with accuracy and imagination and meals must be served in the same manner. Patients' likes, dislikes and desires must be fulfilled. The hospital should demand, therefore, that the prospective student have a bachelor's degree in home economics from a recognized school and that she be prepared adequately for the responsibilities to be assumed.

Qualities the Student Must Possess

Other qualifications that the hospital should require of the prospective student dietitian are:

That she possess good health. This is a well man's world. There is no place on a hospital staff for anyone who does not radiate health.

That she be interested in her work and believe whole-heartedly in its importance.

That she be clean, neat and orderly, not only personally but also in the execution of her work.

That she be able to follow instructions carefully.

That she take good care of equipment and be economical in the use of materials.

That she be observant in the highest degree.

That she possess a good memory in matters of importance and detail—and of people.

That she be able to think clearly and fairly in discharging her duties.

That she be adaptable and capable of meeting new situations.

That she be able to work well with others, and be interested in the problems of employees and of her associates.

That she be able to exert a helpful influence on others in the discharge of their duties.

That she be a good student and have an interest in study and research.

That she have a questioning mind, imagination, foresight and vision.

That she be able to take constructive criticism in the manner in which it is given.

That she have a sympathetic understanding of human nature, a genuine interest in people of all stations of life and the ability to see things from another person's viewpoint.

The two most common characteristics of the hu-

man mind are first, its resistance to new ways of doing things and, second, its resentment of criticism. If these two human traits could be eliminated the training of student dietitians would be less difficult. The big need is for more students with imagination, foresight and vision.

The duties of the hospital dietitian may be listed under three headings, as follows:

1. Administration—organization and execution of the dietary department as a whole.

2. Scientific—scientific feeding of patients, scientific feeding of out-patients and research work.

3. Educational—teaching hospital patients, out-patients, nurses, student dietitians and medical interns.

What should the prospective student expect from the hospital to which she goes for training? The student has a right to expect training and experience in each of the above departments and the opportunity to attend lectures and discussions as to their relation to the other departments of the hospital. Her theoretical work should include lectures by the staff members of these departments in order that she may be conversant with their particular duties and responsibilities. The dietary department cannot function efficiently by itself; it must have the cooperation of the other departments of the hospital. The prospective student should also be assured that the hospital has certain essential qualifications, such as the following: that it is an accredited institution and has an accredited nurses' training school; that it has a bed capacity of at least 200 beds, of which 25 per cent or more are for private patients; that it has at least three student dietitians enrolled; that the student dietitians are given practical and theoretical experience in the various phases of hospital work; that the course covers a minimum period of eight months; that the hospital has a well defined metabolic department and carries on research work; that there be a minimum staff of two dietitians.

The System Used at Toronto General Hospital

How experienced is the student who has spent a year's internship in a hospital? The system employed at Toronto General Hospital, Toronto, Ont., may help answer this question. The institution consists of two separate and distinct hospitals—one a large general hospital with many points of service, and the other a large private pavilion with central service. Altogether there are fifteen departments that the student is required to have definite contact with. This means she will spend less than one month in each of these departments during the period of a year.

Whatever the optimum length of training may prove to be, it will, I feel sure, be reflected by more

This low-cost fruit stimulates appetite ...adds many dietetic factors

CANNED PINEAPPLE, served as a Pineapple Cup of crushed or tidbits, or in a two-slice portion, makes an ideal hospital dish. Pineapple salads, desserts, appetizers are popular with patients. And the nutritional benefits supplied by a daily serving of this unusual fruit are of outstanding importance.

Canned Pineapple is now definitely known to be a good source of vitamins A, B (B₁) and C. It is a source of valuable minerals, notably calcium, phosphorus, copper, iron and manganese. Pineapple definitely raises the alkaline reserve of the blood for at least two hours after ingestion. It speeds gastric digestive action especially on proteins; it stimulates the renal function.

Colorful, rich in flavor, low in cost, almost universally liked, this useful fruit seems to offer many advantages to the hospital diet kitchen.

EDUCATIONAL COMMITTEE
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The recommended daily serving is two slices and a proportionate amount of the juice. Or a Pineapple Cup of crushed or tidbits—approximately 8 ounces.

**2½¢ per portion
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Figures from a leading San Francisco hospital show that a full portion of Canned Pineapple from No. 10 cans costs 2½¢. And on 95 out of a hundred trays the fruit is completely consumed.

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efficient work in the future. One-year courses and longer could probably be planned in connection with securing a higher degree in a university.

Browning says: "We do right to think we do better as we get older." The dietetic profession is no exception to this thought, and members of the profession are gaining more of the spirit that Kenyon Cox describes in these words: "The classic spirit is the disinterested search for perfection. It is the love of clearness and of reasonableness and

of self-control; it is, above all, the love of permanence and of continuity. It asks of a work of art not that it shall be novel, but that it shall be fine and noble. It seeks not merely to express individuality restrained by law. It strives for the essential rather than the accidental, the eternal rather than the momentary. It wishes to add link by link, to the chain of tradition, but it does not wish to break the chain."¹

¹Read at the annual meeting of the Ontario Dietetic Association.

The Relation of Special Diets to Hospital Dietary Service

The special diets used in diabetes mellitus, obesity, under nutrition and peptic ulcer were discussed by Dr. Leo K. Campbell, Presbyterian Hospital, Chicago, at a recent meeting of the Illinois, Indiana and Wisconsin Hospital Associations. At Presbyterian Hospital, according to Doctor Campbell, the opinion is that all four of these conditions should be treated by quantitative diet.

In diabetes mellitus the hospital therapeutic and discharge diets are composed of vegetables, fruit, meat, eggs, cream, butter, bacon, oil dressing and white bread, all ordered in round numbers so that they are easily remembered and calculated. For example, 10 per cent fruit should be in 100 or 200 gram servings, not 90 or 185 gram portions. All of these items are natural food substances, not sham foods, and are easily prepared without additional trouble and cost. The preparation of special breads, biscuits and desserts is troublesome and expensive, and these foods are unnecessary in the management of any case of diabetes mellitus. The use of sham foods encourages self-consciousness, makes a patient conspicuous and is not conducive to helping him forget his disease.

Obesity Diets Are Not Expensive

At the present time the physicians at Presbyterian Hospital are often called upon to reduce the cost of the diabetic diet to the minimum, especially for out-patients who may be receiving help from the charitable societies. This can be done by substituting milk in the diet for cream and by increasing the amount of bacon, butter and oil dressing to make up the difference in fat. This is satisfactory and the diets can be made palatable.

In obesity the diet is mainly composed of fruit and vegetables to satisfy the appetite, and of high protein containing foods, such as meat, fowl, fish and cheese, in sufficient amounts to replace and repair the protein breakdown in the machinery of the body. These diets are not expensive and they contain no expensive special foodstuffs.

In undernutrition and the avitaminoses or deficiency diseases, the diets are necessarily expensive because of their high fruit and cream content. However, here also as in the diabetic diets the expensive cream can in great part be replaced by the other cheaper high-fat containing foods.

In the early treatment of uncomplicated peptic ulcer the diet should be kept close to a quantitative one, with hourly feedings of 100 grams of milk and cream in a proportion that will supply thirty-three to thirty-five calories per kilogram body weight.

Patients discharged from a hospital on quantitative diets

must have instruction in quantitative dietetics, and on how to follow and vary a stem diet. In the case of diabetes the patient should be instructed regarding the nature of the disease, how to test the urine, what to do in the case of an acidosis, and how to use insulin if it is required.

In the Presbyterian Hospital all of this instruction is carried out by a well trained dietitian. Her services in this capacity are found of great economic value both to the patient and the hospital. The thorough training given to a diabetic in the hospital is his life insurance.

A Food Serving Plan That Has Eliminated Waste

Feeding hospital employees adequately yet with minimum waste is a subject deserving careful consideration in these days of reduced budgets. Without any deprivation to the individual, it is possible through closer supervision of food distribution to make supplies go much farther.

In serving its 14,000 employees each day with a free luncheon, it has been the experience of the Metropolitan Life Insurance Company, New York City, that it is better policy to establish a first helping which while generous is not too abundant, and then to extend the privilege of additional helpings if desired. Too many times it was found that a person's eyes were bigger than his stomach, with the result that plates heaped to overflowing were left with some of the food untouched. It was not the intention to limit the employee on the amount of food he consumed, but rather to make sure he actually ate and really wanted what he got. This plan was in force but a short time before substantial savings were made through eliminating waste.

Another advantage in refraining from piling the plate high with food is that it can be made far more appetizing. A little care in this direction will, therefore, have the twofold benefit of producing greater satisfaction in the food service and at the same time will encourage economies.

Dietary Department Cuts Food Bill

The dietary department of the Homeopathic Hospital of Rhode Island, Providence, served 262,587 meals during the year 1932 at a cost of fifteen cents each for the raw food used, it is stated in the hospital's annual report for the year. This was 20 per cent less per capita than in 1931 and 40 per cent below the cost in 1930. Close cooperation between the purchasing department and the food department is cited as one reason for the reduction in costs.

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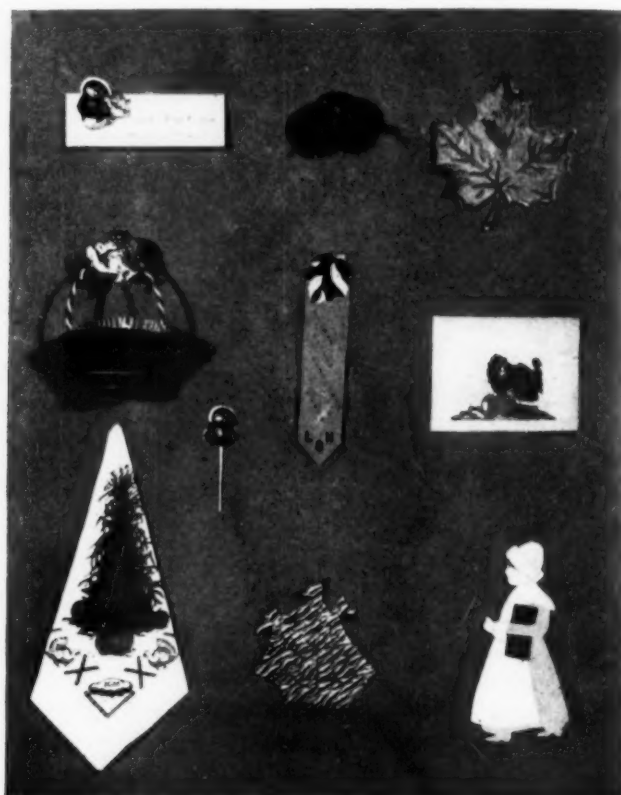
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Thanksgiving Dinner on a Hospital Tray

By LETA B. LINCH

Head Dietitian, Lincoln General Hospital, Lincoln, Neb.



THANKSGIVING marks the beginning of the holiday season. In planning for its observation in the hospital, one should remember that most institutions have more patients on Thanksgiving Day than on Christmas. To a few people Thanksgiving Day means only a football game, but to thinking people everywhere it has a deeper meaning.

Hospital dietitians should realize what it means to patients to be away from home on Thanksgiving Day. Memory recalls family gatherings of the past and the homesick patient longs to be with his own family. A hospital tray at best is a poor substitute for a Thanksgiving dinner at home.

It is a good plan to allow more guest trays for Thanksgiving dinner than are permitted on ordinary occasions. Special attention should be paid to the relatives of patients whose prognosis is not good. If possible, such a patient should be allowed to invite some member of his family to have dinner with him in his room. In some instances it is well to allow the husbands of patients in the obstetric ward to eat with their wives. Elderly people are appreciative of the opportunity to have members of their families as company. Relatives will pay twice the cost of a tray for the privilege of having dinner at the hospital and will go away boosters for the institution.

From a psychologic standpoint, it is important to start the day right. A good breakfast should

be served attractively. The tray may be brightened with a spray of small chrysanthemums, a special napkin and a greeting card. A greeting card in the form of a bookmark will afford pleasure for the day and may be kept as a souvenir after the patient reaches home.

Feasting is the keynote of the Thanksgiving celebration and it is up to the dietitian to see that a perfect dinner is served those who are patients and those who are on duty on Thanksgiving Day. The dinner must be bountiful to be true to tradition. Surprises have their place on the menu, but nothing takes the place of a perfectly baked turkey accompanied by the proverbial mashed potatoes, creamed peas and cranberry sauce. These familiar foods are expected and it is always more or less disappointing when they do not appear. It is equally disappointing not to be served something new and attractive in the form of a salad or dessert.

The "horn of plenty" salad is appropriate for the day and is easily made for large numbers. A mixture of finely diced fruit, including peach and Tokay grapes for color, is prepared. A number sixteen ice cream disher is used to fill an ice cream cone with the fruit. This cone is placed on a carefully arranged bed of lettuce so that part of the fruit appears to pour out of a horn of plenty.

A painted pear salad also lends itself to preparation on a large scale. Diluted red fruit coloring

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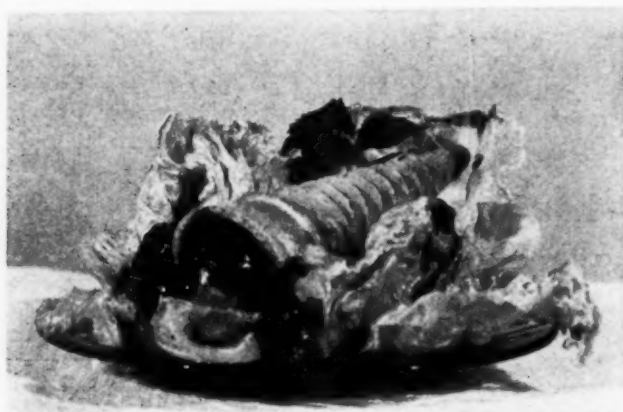
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is applied to canned pears with a small water color brush. If whole pears are used they may be stuffed with a mixture of Philadelphia cream cheese, grated pineapple and nuts. A sprig of mint or smilax may be used for the stem. If half pears are used, the salad may be made a little larger by arranging grapefruit sections with the pear on a bed of lettuce. For the diabetic trays a lemon ring mold salad is recommended. The center is filled with diced 10 per cent fruits.

Individual ice cream molds for dessert are festive and they are new to the majority of patients. They may be had in the form of turkeys, pumpkins, footballs, baskets and chrysanthemums. If brick ice cream must be used because of cost,



The "horn of plenty" salad is a colorful Thanksgiving celebration dish. It is easily made for large numbers.

attractive cookies may be served with it. Small sugar cookies cut in pumpkin shape and decorated with orange icing carry out the holiday idea. A "stick up" made by pasting a turkey seal to a toothpick may be set upright in a serving of ice cream or in a tea cake to add interest.

If it is preferred not to serve ice cream for dessert, a molded gelatin plum pudding is appropriate for a heavy meal. If an easily prepared dessert is wanted a sponge cake melba is attractive. This is prepared by placing a spoonful of whipped cream on a slice of loaf sponge cake. Half a peach is placed on top of the cream. A small amount of pineapple preserve and a slice of red cherry are added as a garnish.

One need not rely on food alone to make the Thanksgiving trays a success. Fall colors in the form of decoration on the trays will help to make an inexpensive dinner an interesting one. A yellow color scheme is easy to carry out in food and in tray decoration. If it has been customary to use white paper tray covers and napkins, colored ones will be a pleasant surprise. Menu cards cut on a fold of paper in the shape of maple leaves are appropriate. Nut cups filled with stuffed

dates, salted nuts or bright candies always dress up a tray.

Turkey favors made of pine cones are novel and inexpensive. Symmetrical, medium sized pine cones should be chosen. Flower wire is wrapped tightly around the cone, twisted and shaped to make the feet. A fantail is made of brown crêpe paper, decorated with gold and black paint. The beak is made of red paper.

While everything is done to make the day pass pleasantly for the patients, the student nurses should not be overlooked. They, too, would like to be at home, and their dinner should be a good one. If the nurses' dining room is equipped with small tables, it would be an innovation to put several of them together to resemble a family table. Several tables may also be arranged in the form of a wheel. The center table, corresponding to the hub of the wheel, may be used for special decorations. Flowers, bowls of fruit or some special centerpiece should be used to give a holiday appearance.

Gay and Inexpensive Centerpieces

It is often difficult to find enough vases and bowls of similar size and shape to give a uniform appearance to a large dining room. Shapely olive or preserve jars may be saved and enameled black for such occasions. Such holders, filled with flowers, bittersweet or autumn leaves, will transform any room. It is often necessary to improvise bowls to hold fruit. Large vegetable dishes or even saucepans may be covered with gold finished crêpe paper and transformed into attractive containers. These bowls, filled with fruit and short branches of long pine needles, make beautiful centerpieces.

A frill of orange crêpe paper cut in petal fashion, gathered and placed over an ordinary dinner plate makes a colorful plate for fruit. Choice fruit heaped high on such a plate, together with cluster raisins and nuts, makes a most attractive dish. A shock of corn about nine inches high, made out of three shades of tan crêpe paper, surrounded by small crêpe paper pumpkins and a turkey favor, makes a realistic centerpiece.

Thanksgiving Day and all other holidays must be planned in advance. It is surprising how many ideas one can adapt from decorations seen in stores and shops if one is really looking for suggestions. Every effort should be made this Thanksgiving Day to give life new meaning. Many persons are so depressed over what they do not have that they have overlooked what they do have. The dietitian can do her bit in the recovery program by making all the patients in her hospital household grateful for blessings already received.

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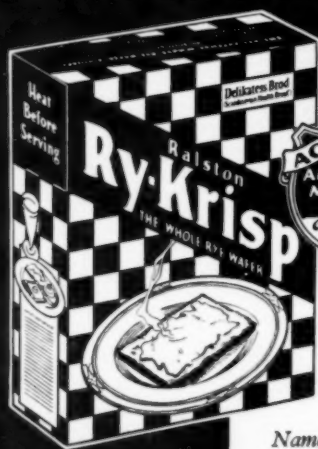
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November Dinner Menus for the General Hospital Patient^{*}

By PHYLLIS DAWSON ROWE

Dietitian, Johns Hopkins Hospital, Baltimore

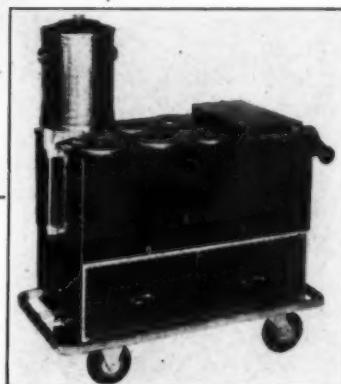
Day	Appetizer or Soup	Meat or Substitute	Potato or Substitute	Vegetable	Salad	Dessert
1.	Cream of Pea Soup	Baked Ham	Southern Sweet Potatoes	Brussels Sprouts	Lettuce, Russian Dressing	Cream Puffs
2.	Chicken Gumbo Soup	Swiss Steak	Baked Stuffed Potatoes	French Spinach	Grapefruit and Orange, Grated Cheese	Fudge Cake
3.	Italian Vegetable Soup	Broiled Oysters, Bacon	Creamed Potatoes	Broccoli	Lettuce and Tomato	Charlotte Russe
4.	Oxtail Soup	Veal Cutlets, Tomato Sauce	Parsley Potato Balls	Peas	Olives	Fruit Cup, Butter Wafers
5.	Consommé	Roast Duck	Pearl Hominy	Baked Tomatoes	Celery Hearts	French Vanilla Ice Cream, Chocolate Sauce
6.	Southern Bisque	Liver and Bacon	Mashed Potatoes	Creamed Celery	Pineapple and Cheese	Caramel Nut Ice Cream
7.	Duchess Soup	Roast Beef	Au Gratin Potatoes	Braised Carrots	Romaine, French Dressing	Three Fruit Sherbet
8.	Petite Marmite	Creamed Chicken and Toast Points	Glazed Sweet Potatoes	String Beans	Frozen Fruit	Ice Box Cookies
9.	Tomato Bisque	Veal Birds	Escalloped Potatoes	Spinach With Egg	Cabbage	Baked Apple With Cream, Hermits
10.	Clam Chowder	Salmon Loaf, Parsley Butter Sauce	Duchess Potatoes	Peas	Asparagus	Lemon Snow, Custard Sauce
11.	Mulligatawny Soup	Mixed Grill	Parisienne Potatoes	Southern Stewed Tomatoes	Endive	Coffee Mallow
12.	Fresh Fruit Cup	Chicken Maryland	Hominy Grits	Wax Beans	French	Burnt Almond Ice Cream
13.	Princess Soup	Broiled Ham	Baked Sweet Potatoes	Escalloped Cabbage	Coddled Apples	Date Torte With Whipped Cream
14.	Mock Turtle Soup	Roulade of Beef	Rice	Beets	Shredded Lettuce, Roquefort Dressing	Frozen Custard
15.	Shrimp Cocktail	Chicken Croquettes	Potatoes in Cream	String Beans	Waldorf	Fudge Squares
16.	Chicken à la Reine Soup	Roast Beef au Jus	Franconia Potatoes	Creamed Onions	Pineapple and Almond	Lady Baltimore Cake
17.	Fish Chowder	Broiled Halibut and Lemon	Mashed Potatoes	Broiled Tomatoes	Lettuce and Mayonnaise	Cherry Tarts, Cream Cheese
18.	Cream of Asparagus Soup	Baked Ham, Raisin Sauce	Corn Pudding	Spinach	Celery Stuffed With Pimiento Cheese	Brown Betty, Hard Sauce
19.	Tomato Juice	Broiled Steak	Mashed Sweet Potatoes, Marshmallows	Creamed Mushrooms	Watercress	Cottage Pudding and Whipped Cream, Chocolate Nut Sauce
20.	Oyster Bisque	Individual Meat Pies		Baked Stuffed Tomatoes	Mixed Green	Fresh Fruit Jelly and Whipped Cream
21.	Chicken Creole Soup	Lamb Cutlets	Spoon Bread	Cymlings	Fruit	Praline Ice Cream
22.	Tomato Bouillon	Chicken Fricassee and Biscuits	Rice	Cauliflower, Parsley Butter	Prune and Nut	Frozen Strawberry Mousse
23.	Jackson Soup	Braised Tongue	Delmonico Potatoes	Lima Beans	Tomato With Cream Cheese	Chocolate Eclairs
24.	Split Pea Soup	Baked Finnan Haddie	Chateau Potatoes	Broiled Tomatoes	Stuffed Olives	Lemon Norwegian Ice
25.	German Potato Soup	Roast Lamb	Rice	Peas	Lettuce, Chiffonade Dressing	Prune Whip, Custard Sauce
26.	Beef Broth With Barley	Chicken in Patty Shells	Parsley Potatoes	Asparagus	Stuffed Celery	Chocolate Ice Cream
27.	Clam Bisque	Scallopine of Veal	Italian Spaghetti	Spinach	Radishes	Apple Tarts With Cheese
28.	Philadelphia Pepper Pot	Escalloped Oysters	Baked Stuffed Potatoes	Broccoli	Date and Cheese	Butterscotch Kossuth Cake
29.	Chicken Noodle Soup	Meat Loaf, Mushroom Sauce	Pittsburgh Potatoes	Escalloped Eggplant	Lettuce and Mayonnaise	Chocolate Blancmange With Cream
30.	Oyster Cocktail	Roast Turkey and Dressing, Cranberry Jelly	Mashed Potatoes	Baked Hubbard Squash	Olives and Celery	Plum Pudding, Hard Sauce

^{*}Reclpes for any of the above dishes will be supplied upon request.



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NEWS OF THE MONTH

A. C. of S. Seeks Way to Lower Hospital Charges at Standardization Conference

As an evidence of the interest which now attaches to the economic aspects of medical practice, the hospital standardization congress of the American College of Surgeons, held in Chicago, October 9 to 12, included this year for the first time a round table conference on medical and hospital economics.

Suggestions aimed to lower hospital charges without lowering the quality of care were put forward from the point of view of the surgeon, the internist, the specialist, the pathologist, and, finally, the hospital administrator. Dr. Alexander W. Blain, Detroit, speaking for the surgeons, urged the elimination of "frills and expensive superfluities," such as social activity during convalescence. Dr. S. Marx White, internist, Minneapolis, urged that the charges for laboratory, x-ray and other subsidiary services should vary with the patients' means. Dr. Austin A. Hayden, Chicago, speaking as a specialist, urged that the charges for the "extras" be put on a flat fee or average basis. Dr. J. J. Moore, Chicago, representing the pathologists, took issue with previous speakers about the hardship of extra charges and urged that patients be told that the so-called "extras" are the essentials. He did agree that some sort of flat rate charge for laboratory work is desirable.

Suggests Ways to Cut Costs

In presenting the viewpoint of the hospitals, Paul Fesler, superintendent, Wesley Memorial Hospital, Chicago, said that apparently each of the various groups of physicians was much more ready to suggest economies in some other department of the hospital than in his own. The standards of the college, he said, have increased costs of hospitals tremendously. He suggested that the best ways to cut costs were by having a trained superintendent, by having an impartial survey of the institution, by making every person not working with food pay for his meals, by studying nursing costs and in many cases closing the nursing school, by eliminating duplication among hospitals, and by inducing physicians to use the hospital's laborato-

ries and x-ray services extensively.

Economies for the small hospital were suggested by Rev. Clinton F. Smith, superintendent, Allen Memorial Hospital, Waterloo, Iowa. These include selection of an efficient personnel, an economy program in every part of the hospital to detect leaks and stop waste, careful planning of the building and placing of equipment, intelligent purchasing by competitive bids without sacrifice of quality and under the control of a systematic perpetual inventory, systematic accounting of all expenditures, restriction of credit to patients, and the education



Dr. J. Bentley Squier, retiring president.

of patients to pay their bills promptly.

General principles which should underlie group hospitalization plans were presented by Dr. William H. Walsh, Chicago. These principles were substantially those which were laid down by the council on community relations of the American Hospital Association last spring. Dr. Charles A. Dukes, Oakland, Calif., described the "Alameda Plan." The essential parts of this program are group hospitalization under the direction of the county medical society and a plan whereby near-indigent patients who can pay anything, no matter how small, will be cared for by private practitioners instead of being referred to the county hospital. Since the plan started, about 5 per cent of the patients who applied to the central social service have been referred to private practitioners. All part-pay clinics have been closed.

The next century will see revolutionary changes in the function of the physician, according to Dr. George W.

Crile, Cleveland. The physician's rôle will be to develop the race, study the relation of man to his environment and prevent disease. Group medicine will have become definitely established, Doctor Crile declared. Rev. Alphonse M. Schwitalla, St. Louis, president, Catholic Hospital Association, declared, on the other hand, that the "wholesale practice of medicine" as exemplified in group practice and insurance practice, "is opposed fundamentally and completely to the stresses we have learned to lay upon the individual's human nature."

Says A. C. of S. Approval Is Helpful

Dr. Bert W. Caldwell, executive secretary, American Hospital Association, Chicago, pointed out the threat that tax supported hospitals constitute to the voluntary institutions and made a strong plea for physicians to help the hospitals.

Even small hospitals can meet the standards of the American College of Surgeons without undue cost, according to Marsh T. Lewis, president, board of trustees, Princeton Methodist Hospital, Princeton, Ind. In fact, Mr. Lewis said, his hospital had found that an increased patronage resulted from A. C. of S. approval.

Hospital annual reports which consist largely of the names of persons associated with the hospital and columns of uninteresting figures were roundly scored by Dr. Charles E. Remy, superintendent, Minneapolis General Hospital, Minneapolis. Reports should be history and not mathematics, Doctor Remy declared, and they should tell of the hospital's problems, mistakes and accomplishments.

The inadequacy of suitable convalescent facilities in most parts of the United States and Canada was shown by Dr. G. Harvey Agnew, Toronto. "All general hospitals in a community should unite in cooperating with and directing the local convalescent unit or units," Doctor Agnew stated. "Municipal authorities, the department of health, the Community Chest, and the voluntary social agencies should cooperate in supporting such an institution." Both philanthropy and tax support are necessary to finance convalescent units, Doctor Agnew said.

A joint session of the hospital standardization conference and the Association of Record Librarians on Wednes-

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NEWS OF THE MONTH

day morning was featured by excellent papers. Mary M. Newton, Pittsburgh Homeopathic Hospital, Pittsburgh, suggested new fields for the record librarian to conquer. All hospital records, except the financial records, should, she suggested, center in the record department. These would include the records of the interns' service. The librarian would then be in a position to fill in monthly and annual reports for the American College of Surgeons, the American Medical Association, the American Hospital Association and similar bodies. Student nurses should spend two weeks or a month in the record department, Miss Newton declared. The record librarian should read hospital and medical journals and refer articles to those persons interested.

Clinics Held at Approved Hospitals

Hospital cancer records to be of value in research must be complete, accurate, well organized so that abstracting is easy, and uniform among hospitals, according to Priscilla Weir, New York City.

Fracture records should show the type of fracture, the method of treatment, the period of disability and the end result in terms of function, said Dr. Frank D. Dickson, Kansas City, Mo.

On Tuesday afternoon the conference members attended a demonstration in hospital administration conducted at St. Luke's Hospital, Chicago, by Charles A. Wordell, superintendent. On Wednesday, Thursday and Friday a large number of clinics in hospital administration were held in Chicago hospitals approved by the college.

One of the most interesting round table discussions was held on Thursday morning under the direction of Dr. R. C. Buerki, superintendent, State of Wisconsin General Hospital, Madison, Wis., Dr. G. Harvey Agnew, and Robert Jolly, superintendent, Memorial Hospital, Houston, Tex.

Many members of the hospital conference also attended some of the other meetings of the college, particularly the community health meeting on Wednesday evening when 10,000 persons gathered in the Chicago Stadium to hear leaders in the medical and hospital fields and the symposium on cured cases of cancer.

Institute for Hospital Administrators

Grants Certificates to 134 Students

The Institute for Hospital Administrators, held at the University of Chicago Clinics, closed on Friday, October 6, with a reconciliation seminar conducted by the students and a luncheon-banquet tendered by the members of the institute to the faculty and sponsors. Certificates of completion of the course were awarded 134 of the 201 students who paid their fees for the three-week course.

The success which attended the institute was largely attributed by those in a position to judge to the active interest of the Chicago Hospital Association. Practically every member of the association conducted one or more clinics in hospital administration at his hospital and these clinics were an outstanding feature of the institute. In addition, many members of the association were included among the lecturers, the association gave a banquet on the opening night, and it ar-

ranged for sight-seeing tours of the city.

It was the opinion of those who participated that such an institute should become an annual event. In evaluating the experience gained in this first institute, there seemed to be general agreement that the plan of including only active hospital executives as members was a good one, but that some classification on the basis of previous experience, if feasible, would be desirable. The curriculum committee is expected to present a report to the American Hospital Association which will summarize the strengths and weaknesses of this institute for guidance in planning similar courses in the future.

A carefully edited digest of the proceedings is available through the University of Chicago Clinics for \$7.50. This digest is a gold mine of suggestions on hospital administration.

Ohio Hospital Association Announces District Meetings

In accordance with the plan recently outlined for a closer coordination of hospital work in Ohio, four district meetings have been announced by the Ohio Hospital Association.

The first meeting was held in Cleveland on October 25. The other three meetings are scheduled as follows: Toledo district, November 1, at the Toledo Hospital; Columbus District, November 8, at the White Cross Hospital, Columbus, and Cincinnati District, November 9, at the Christ Hospital, Cincinnati.

The program for each of these meetings is the same, so that the speakers may be fully conversant with their topics and the various meetings coordinated. The highlights of the program include addresses by Guy J. Clark, executive secretary, Cleveland Hospital Council, on the processing tax, John R. Mannix, University Hospitals, Cleveland, on group hospitalization, Father M. F. Griffin, Cleveland, on financial relief for hospitals and the federal medical relief pro-

gram, Dr. C. S. Woods, St. Luke's Hospital, Cleveland, on the development of district hospital councils, and A. E. Hardgrove, City Hospital, Akron, on methods for financing the activities of the Ohio Hospital Association. In addition round table discussions on district hospital problems will be held. B. W. Stewart, Youngstown, president of the Ohio Hospital Association, will preside.

Colorado Association Will Meet November 15 and 16

The Colorado Hospital Association will hold its annual meeting on Wednesday and Thursday, November 15 and 16. The Cosmopolitan Hotel, Denver, will serve as headquarters for the meeting. The annual banquet will be held on the evening of November 15.

Frank J. Walter, superintendent, St. Luke's Hospital, Denver, is president of the association. The executive secretary is William S. McNary, University of Colorado School of Medicine and Hospitals.



LEAVEN of KINDLINESS » »

Only from Jim Petersen could you get the real story. The hospital record merely says Florence Petersen, parents James and Anna, was an emergency case for immediate tracheotomy. Seven months later after three more tracheotomies she was discharged, cured. No bill was rendered.

In Jim Petersen's neighborhood there had been no drama in the depression. It was too deliberate, too unhurried as it moved forward crushing out the dreams, the hopes, the resources of family after family. You saw it coming, a few months off; daily saw it closer, growing in immense, misshapen circles, like a nightmare—and there was no escape.

Jim Petersen hated dependence. He hated his weekly dole. He hated the idea of Florence being a "charity" patient. Having a "gift of gab" he expressed his hatred in plain, understandable language which won for him a kind of leadership wherever the men in his neighborhood gathered in groups. "Watch Jim Petersen, someday he'll—" and eyes would brighten at the prospect. What he told the surgeon, when informed that a fourth tracheotomy was necessary was known throughout the neighborhood within a few hours. "Just sounds like Jim. He says 'What's the big idea. Think she's a guinea pig?' He's bringin' 'er home in the mornin' to die in peace."

He didn't take her home in the morning. He and the surgeon had another talk. And when he did at last take her home it was because she was well. A miracle! But the real miracle was not that Florence was given a new lease on life. The real miracle was that Jim Petersen was given a new vision—and through Jim the neighborhood.

●

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Surgeon Gen'l H. S. Cumming.

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NEWS OF THE MONTH

Veterans' Hospital Soon Ready for Occupancy

Although no definite date has been set for its opening, the U. S. Veterans' Hospital, Batavia, N. Y., is completed and is now being equipped. The hospital is situated on a fifty-acre site on the edge of the city and has accommodations for 300 patients. It will serve veterans in thirty-one counties in the Buffalo regional area.

Two New York Hospitals Merge as Medical Center

What will be known as the Beth Israel Medical Center, New York City, marks the merger of the Beth Israel Hospital and the Jewish Maternity Hospital, forming an institution that will minister to the needs of the destitute in the lower east side of New York City.

As part of the new plan, the Maternity Hospital will begin work on a new building on a plot adjacent to Beth Israel, a comparatively new structure. While this new building is in the course of construction, the hospital will occupy two stories in the Beth Israel institution, its old building being used as a registration center and clinic. Each hospital will retain its identity.

Even after the Maternity Hospital's new building is completed, the fourth floor of Beth Israel will be devoted to maternity work, affording a combined capacity of about 120 cases, more than double the present maximum. Provisions also are being made for twice as many free patients as private patients.

Health Beacon to Be Dedicated by Indianapolis Hospital

A lighted health beacon erected on the roof of the new wing of the Methodist Episcopal Hospital, Indianapolis, will be dedicated at an appropriate ceremony on November 9.

The beacon rises 250 feet above the ground level and eighty feet above the roof of the building. It is constructed along the same lines as the one at St. Bartholomew's Hospital, London. The light at the top of the tower is in the form of a cross, and is designed to flash on and off intermittently. The tower also contains a light designed

to serve as a guide for aviators.

Mrs. Mary Hanson Carey, Indianapolis, donated the funds for the beacon and at the dedication ceremony will press the button that will illuminate it.

John G. Benson, general superintendent of the hospital, states that the



This night picture shows the health beacon on top of the Methodist Episcopal Hospital, Indianapolis.

beacon will be the symbol of the five-year "new deal" drive launched recently by the four hospitals comprising the Methodist Hospital Association of Indiana.

Doctor Washburn to Retire

Dr. Frederic A. Washburn, director of the Massachusetts General Hospital, Boston, since 1922, will retire from that position on February 1, 1934.

A graduate of Harvard University, Doctor Washburn first became associated with the Massachusetts General Hospital in 1899 as assistant resident physician. Since that time he has been continuously associated with the hospital except for war service. In 1912 he served as president of the American Hospital Association and since May, 1932, has been a member of the Council on Medical Education and Hospitals of the American Medical Association. He has also been superintendent of the Massachusetts Eye and Ear Infirmary, a branch of the General Hospital, since 1922.

Dr. George H. Bigelow, commissioner of public health in Massachu-

setts, has been chosen to succeed Doctor Washburn. Doctor Bigelow, also a Harvard graduate, served as a house officer of the Massachusetts General Hospital in 1917. Following war service in the laboratory section, he took a degree in public health at Harvard, spent a year at Antioch College, directed the Cornell Pay Clinic from 1922 to 1924, and was appointed deputy commissioner of the Massachusetts Department of Public Health in 1924 and commissioner the following year. He was a member of the Committee on the Costs of Medical Care and has written extensively on the care of chronic diseases.

Columbia Hospital Completes Big Expansion Program

In spite of the economic depression the Columbia Hospital, Columbia, S. C., has recently built and opened substantial additions to its plant, all of which have been paid for upon completion.

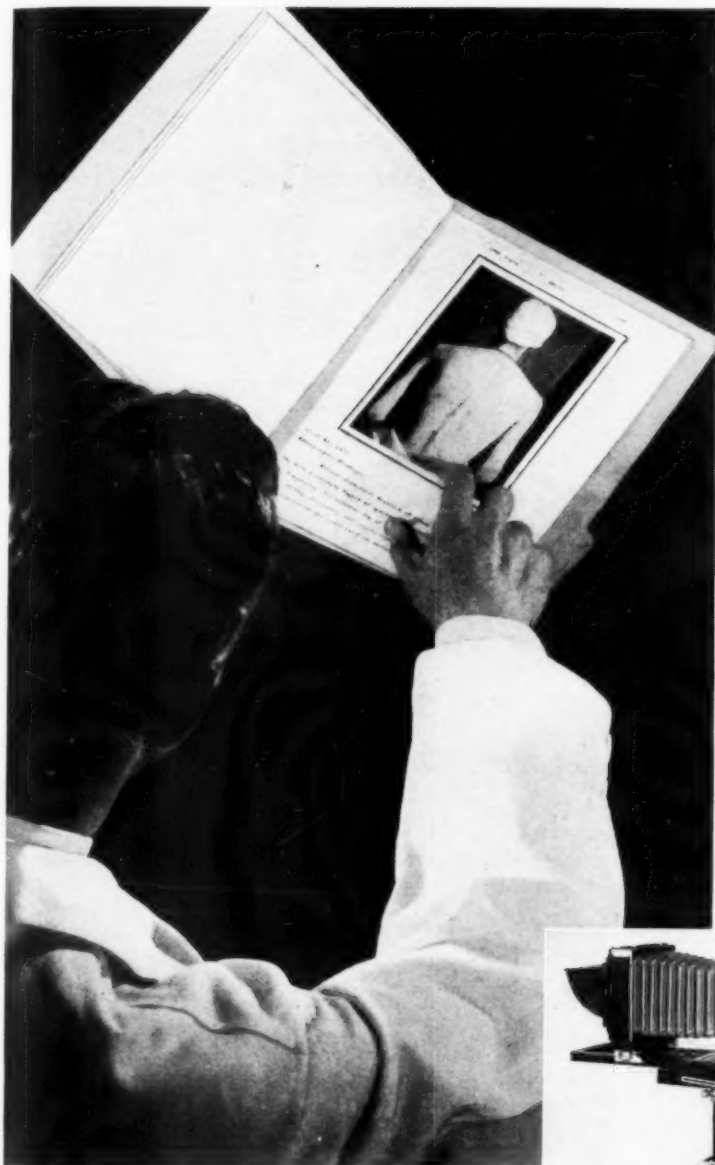
The total cost of the new construction was \$225,000, divided as follows: a seventy-five-bed hospital for Negroes, \$72,000; a four-story addition to the hospital for white patients, including new surgical and obstetrical pavilions, \$136,000; remodeling of the original two-story building to make it an integral part of the new building, \$17,000. The new hospital now has a capacity of about 200 beds. The Negro building, while separate and a short distance from the main hospital, is in reality an integral part of it.

Will Spend \$2,000,000 on Three Michigan Hospitals

The Michigan state administrative board has petitioned the federal authorities in Washington, D. C., for nearly \$2,000,000 to be spent in public works improvements at the Traverse City State Hospital, Traverse City, Mich., the State Psychopathic Hospital, Ann Arbor, Mich., and the Michigan State Sanatorium for Tuberculosis, Howell, Mich.

It is planned, if the necessary funds are received, to spend \$1,757,000 at Traverse City State Hospital, and a smaller amount at each of the other two institutions.

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NEWS OF THE MONTH

Record Librarians Hold Annual Convention; Report Good Progress During Past Year

The Association of Record Librarians of North America held its fifth annual conference in Chicago, October 9 to 13. The convention was representative as members were present from all parts of the United States and Canada.

The past year was one of progress for the association. The goal set for new members was doubled. There are now only three states not represented in the association. At a luncheon for the officers of the North American and local associations, the theme of discussion was how to organize more local and state associations, thus broadening the scope of interest in raising the standard of clinical records and getting these groups in line with the parent association.

A movement was launched last year to register all properly qualified record librarians. At the present time, 239 record librarians have filled the requirements and registered. The free registration of members was closed October 1. All record librarians wishing to register in the future will be required to pass an examination.

Alice G. Kirkland, Samuel Merritt Hospital, Oakland, Calif., was appointed registrar for the ensuing year. Dorothea Trotter, Blodgett Memorial

Hospital, Grand Rapids, Mich., is chairman of the board of registration.

The association was presented with an engraved silver banded gavel by the honorary president, Mrs. Grace W. Myers, librarian emeritus, Massachusetts General Hospital, Boston.

The exhibit was a valuable collection of data and history forms and is made available to hospital or other organizations as a traveling exhibit.

Alden B. Mills, managing editor, *The MODERN HOSPITAL*, and Matthew O. Foley, editor, *Hospital Management*, read papers on writing articles for publication. Dr. T. R. Ponton, editor of the association's bulletin, led the discussion. Following was a symposium on the correlation of various departments with the record department. The general discussion was led by Dr. J. J. Moore, pathologist, Ravenswood Hospital, Chicago.

On Wednesday morning, at a joint conference with the hospital standardization conference, A. C. of S., Priscilla Weir, American Society for the Control of Cancer, stressed the importance of accurate checking of the chart by the record librarian in a long time study. Dr. Frank D. Dickson, Kansas City, Mo., read a paper on the importance of accurate and complete rec-

ords on fracture cases. Dr. John R. Fraser, professor of obstetrics and gynecology, McGill University, Montreal, Que., discussed the importance of accurate and complete obstetrical records. Dr. R. C. Buerki, superintendent, State of Wisconsin General Hospital, Madison, Wis., presided and led the round table discussion.

On Wednesday afternoon, Dr. Eben J. Carey spoke at the Hall of Science of A Century of Progress on the highlights of A Century of Progress Exposition.

The Thursday morning papers centered around the topics pertinent to record department problems. These were followed by a round table conference led by Doctor Buerki, based upon sixty questions previously prepared from questions sent to the bulletin by members during the year.

At the afternoon session Mrs. Grace W. Myers presented an interesting paper on "The Clinical Record of One Hundred Years Ago." Quotations were made from the actual records. Cancer records, a punch card system of keeping records, and building and using a classification of diseases were among the topics of the other papers for the afternoon. The banquet was held on Thursday evening.

A business session closed the convention on Friday morning, at which time Edna K. Huffman, St. Luke's Hospital, Davenport, Iowa, was named president-elect. Alice G. Kirkland, retiring president, presented the symbol of office to Evelyn M. Vredenburg, Woman's Hospital, New York City, president for the ensuing year.

Socialized Medicine Is Inevitable, Doctor Says

Asserting that the medical profession is undergoing one of the greatest revolutions in its history, Dr. Henry E. Sigerist predicted at a recent meeting of the New York Academy of Medicine that some form of socialized medicine was inevitable.

Doctor Sigerist, who is professor of the history of medicine, Johns Hopkins University, said the organization of facilities for medical care had not kept pace with the progress of medical science during the last century.

"The more efficient medicine became," he said, "the more complicated and the more expensive it was and the more difficult it was for the doctor to give free medical care. Today,

therefore, we are in the serious situation of running the risk of seeing an efficient medicine wrecked by maladjustment."

The group clinic, he said, provides one answer to the problem of overspecialization, while some modified form of sickness insurance might serve to bring medical care within the reach of all. Doctor Sigerist said that to his way of thinking the trend was away from individualism in medicine, and added:

"There is one lesson that can be derived from history. It is this: That the physician's position in society is never determined by the physician himself, but by the society he is serving. We can oppose the development, we can retard it, but we will never be able to stop it."

New York Presbyterian Benefits From Estate

Under the terms of the will made by Nathaniel L. McCready, member of an old New York family, the Presbyterian Hospital, New York City, receives the residue of the estate after the death of a sister-in-law. The bequest to the hospital is for the establishment of the Jeanne Campbell McCready Fund in memory of the testator's wife. The principal of the fund is to be used for the care and treatment of those suffering from cardiac ailments or for research in connection with the cause or cure of such diseases.



A ward in the new Backus Memorial Hospital, Norwich, Conn. Both floor and walls are Sealex.

Two reasons why these modern floor and wall materials are *more sanitary*

The first reason is that Sealex Linoleum and Sealex Wall-Covering are exceptionally easy to clean. No gaping seams or cracks in which dirt and germs can find lodgment. Both materials are stainproof and waterproof—and can be kept immaculate with a minimum of effort.

The second reason is linoxyn (oxidized linseed oil). This is an important ingredient in both these products. Recent scientific tests indicate that linoxyn possesses definite germicidal properties—and that floors and walls containing linoxyn may be considered to have special sanitary values.

But sanitation is not the sole reason why Sealex is used so extensively in modern hospitals. Another advantage of these materials is their permanence—and the way they eliminate upkeep expense. Colors cannot wear off; never need to be renewed. This

means that undesirable fresh-paint odors are ruled out of the hospital with floors and walls of Sealex.

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NEWS OF THE MONTH

Palestine Envisioned as Medical Capital

Palestine as a world center of medical science is envisioned by Jews now as a direct result of the Hitler oppression which is driving the best Jewish minds out of Germany, Mrs. David Greenberg, Zionist leader, told the *New York World Telegram* on her return recently from a trip to foreign countries.

"Establishment of the University Hospital and Graduate Medical School, in Palestine, a project conceived years ago in serenity, has become the crux of our answer to the sudden and overwhelming problems involved in the Jewish exodus from Germany," Mrs. Greenberg said.

"The University Hospital, when completed, will be the most important diagnostic and research institution in the Near East," Mrs. Greenberg stated. "It will receive within its doors scientists of international reputation who have been swept out of the creative life of Germany as a result of Hitler's actions.

"We have already established an Institute of Radiology at the Hadassah Hospital, Jerusalem, with Prof. Ludwig Halberstetter, formerly head of the Cancer Institute, Berlin, as its director."

New Hospital Dedicated

With befitting ceremonies, a new \$250,000 municipal hospital building was dedicated in Greenwich, Conn., on October 18. Among the speakers was Shirley W. Wynne, health commissioner, New York City. William B. Tubby, Sr., was the architect of the new structure.

Protest Cut in New York City Hospital Budget

The point has been reached "where it is not humanly possible to furnish adequate nursing care in the municipal hospitals," according to a message sent to Mayor O'Brien and the New York City Board of Estimate by the public health committee of the New York Academy of Medicine.

The message pointed out that since 1930 there had been a steadily grow-

ing demand for care in the municipal hospitals and it had not been uncommon to find forty patients cared for in a ward with a normal capacity of twenty-five beds. The overcrowding of the hospitals, the committee wrote, caused the heaviest load to fall on the shoulders of the medical staff, nurses, ward maids, orderlies and other helpers concerned with the care of the sick.

The committee pointed out that the budget request by the Department of

Hospitals for an increase of \$1,550,000 over this year's appropriation was in no way excessive. In spite of rising prices and the additional sums needed for medical and surgical supplies, food and other necessities, the budget authorities granted an increase of only \$680,000, although the bed capacity of the Hospitals Department increased this year, due to the occupancy of certain new buildings that had been pressed into service, the committee pointed out in its message.

Clinic Managers Discuss Pertinent Problems at Conference in St. Paul

The eighth annual conference of clinic managers held at St. Paul, Minn., September 22 and 23, drew representatives from clinics as far west as San Diego, Calif., as far south as Little Rock, Ark., as far east as Boston, and from many clinics of Minnesota, North and South Dakota and Montana.

Many interesting problems were discussed. Dr. S. Marx White, Nicollet Clinic, Minneapolis, chairman of the committee on control of contract practice of the Minnesota Medical Association, presented the program of his committee relative to the control of contract practice in Minnesota.

Dr. J. Rollin French, Los Angeles, president of the Western Hospital Association, spoke on changing conditions in California as they pertain to medical practice and warned the conference that pending legislation relative to medical practice was threatening the entire medical and hospital field in his state and might be the forerunner of socialized or state medicine throughout the country.

Group hospitalization as it had been worked out in St. Paul, Minn., was presented by Arthur M. Calvin, Midway and Mounds Park Hospitals. He brought out the fact that although a program had previously been approved by the state insurance commissioner of Minnesota, it was later found necessary to change the organization structure to come under the insurance laws of the state. He further stated that about one thousand persons had signed the agreement to date.

At a round table discussion in charge of A. G. Stasel, Nicollet Clinic, Minneapolis, covering various subjects such as "Trend of Socialized Medicine," "Emergency Service in Minneapolis," "Collections and Collection Methods," "N.R.A. as It Affects Clinic Organizations," many interesting conclusions were arrived at.

Mrs. North, San Diego, Calif., gave an interesting demonstration of how to interview a prospective patient relative to medical services desired and prospects of paying for the same.

A symposium on necessary clinic and hospital insurance was presided over by H. J. Harwick, Mayo Clinic, Rochester, Minn. Stan D. Donnelly, attorney, St. Paul, presented the subject from the legal point of view; Carl Mannheimer, U. S. Fidelity and Guaranty Company, spoke from the insurance underwriters' point of view. Emphasis was laid on the importance of checking the minute details of medical policies to be sure of full coverage particularly because of present economic conditions.

Governmental finance organization, as it affects collections in rural communities was presented by S. S. Boise, Bismarck, N. D., and Margaret Gleason, Davenport, Iowa.

Joseph Jackson, Jackson Clinic, Madison, Wis., gave a brief resumé of what has happened in medical economics in Wisconsin.

Social activities included an automobile ride through the Twin Cities, a banquet at the Lowry Hotel and a trip to the Cavern Night Club.

1500 SURGEONS planned the specifications of Dermatized gloves



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CHEMICAL WORKS
ST. LOUIS NEW YORK

NEWS OF THE MONTH

Dietitian's Part in Economic Crisis Stressed at American Dietetic Association's Convention

The American Dietetic Association held a successful meeting in Chicago, October 9 to 13. It was the sixteenth annual meeting of the organization.

The following officers were elected for the ensuing year: president-elect, Laura Comstock, Rochester, N. Y.; first vice president, Jean M. Stewart, Stanford University Hospital, San Francisco; second vice president, Ruth Atwater, Washington, D. C.; secretary, Margaret Ritchie, Battle Creek College, Battle Creek, Mich.; treasurer, Ella Marie Eck, manager, food service department, University of Chicago Clinics.

Emphasis was largely on the economic situation and the dietitian's part in helping to solve the nutrition problems associated with the crisis.

Child Health Situation Described

This phase of the program was presented by such leaders as Paul H. Douglas, professor of economics, University of Chicago, who talked on "Remedies for Social Indigestion" and Dr. Arthur E. Holt, professor of social ethics, University of Chicago, whose subject was "Removing the Social Taint in the City Milk Supply."

Dr. Malcolm T. MacEachern, director of hospital activities, American College of Surgeons, gave an encouraging survey of the progress of the dietitian in her field, and he introduced Robert Jolly, Houston, Tex., president-elect, American Hospital Association, who suggested ways by which the profession could promote its interests.

Dr. Ella Oppenheimer, Children's Bureau, Washington, D. C., pointed out some interesting facts dealing with child health in times of economic stress. Doctor Oppenheimer cited figures to show the trend in the nutritional condition of children.

At the welcoming luncheon on Monday, Dr. Kate Daum, president of the association, told of conferences from which she had just returned in Washington with Frances Perkins, secretary of labor, and other persons interested in child health, at which the cooperation of dietitians was requested. Doctor Daum urged those present to offer

their services to their local relief agencies.

The community education section held several round tables at which food clinics, child health and similar economic problems were discussed. Mrs. Anna DePlanter Bowes, Philadelphia Child Health Society, Philadelphia, outlined the needs for child health work, based upon a recent study. These needs, in the order of importance, are:

(1) Better educational facilities for teaching parents in conferences, clinics and homes; (2) more money for adequate food; (3) more nutritionists with a definite program; (4) better nutrition information for nurses and social workers; (5) more dental treatment facilities; (6) more physicians in clinics; (7) more child health stations; (8) more adequate preventorium and convalescent care, and (9) more cooperation from public health and relief agencies.

The diet therapy section was addressed by Icie G. Macy, director, Research Laboratory, Children's Fund of Michigan, who talked on "Mineral Metabolism of Children," and Florence H. Smith, assistant professor of nutrition, department of medicine, University of Chicago, who gave an interesting paper entitled "Observations on Obesity."

The Administration Meeting

The reports of the diet therapy section committees included the following: "Method of Calculating and Administering Diabetic Diets," Jean Grant, chairman; "Survey of Teaching In-Patients in Hospitals," Marie Diton; "Quality Study in Several Therapeutic Diets," Eloise R. Trescher and Miss Dunham, joint chairmen.

Equipment and equipment materials were discussed at the administration section meeting by C. O. Addison, Chicago, and M. J. Prucha, department of dairy husbandry, University of Illinois. "Good Food—the Universal Appeal" was the subject of a paper by George Rector. He described some of the differences between good food and poor food, good service and poor service. The detailed reports that have been prepared by this section and are

available through the association office are:

"The Food Budget: A Quantitative Study of Consumption to Determine Standard Amounts," by Ella M. Eck and Anna M. Tracy; "Study of Yields for Fresh Vegetables and Fruit," by Florence Bateson, Cleveland Clinic Hospital, Cleveland, and Zoe Wertman, Lansing, Mich.; "Study of Breakage and Loss of China, Glassware and Silver in the Institution Food Unit," by Nell Taylor Wolfe, Michael Reese Hospital, Chicago, and Mabel A. Bailie, Kellogg College, Battle Creek, Mich.; "Cost of Upkeep and Life Expectancy of Fixed Equipment in the Institution Food Unit," by Emma F. Holloway, Pratt Institute, Brooklyn, N. Y.

At the section on professional education, George A. Works, professor of education, University of Chicago, spoke on "Trends in Professional Education."

Reports on Hospital Inspection

Mary DeGarmo Bryan, Columbia University, read the committee report on "Hospital Inspection." The report showed that inspection has progressed this year to the point where there is one inspector to check on all hospital student dietetic courses. Helen Clarke, New York City, discussed the hospital inspection problem from the standpoint of academic training given to students expecting to become hospital dietitians.

A plan for teaching nutrition and diet therapy to nurses was reported on by Mary Harrington, chairman of the section. Fairfax T. Proudfit, University of Tennessee, Memphis, described the material that might be presented to medical groups.

Problems of cooperation between the state and national associations were discussed at the affiliation luncheon, and a number of new affiliations were reported.

The professional trips on Friday included visits to a number of Chicago hospitals and the produce market.

The committee on trips planned several conducted tours to A Century of Progress, which emphasized the scientific exhibits that would be of special interest to the group.

It was felt that the meeting and exhibits, which included many food and equipment firms, had proved profitable for all attending.

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Three new products, including an improved soft-paste white-lead, now make it easy to insure Dutch Boy quality throughout on every white-lead painting job. By rounding out this famous family, these products enable you to obtain beautiful and durable finishes, either interior or exterior, that are "Dutch Boy" even to colors-in-oil and drier.

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DUTCH BOY WALL PRIMER. A special primer developed for use in white-lead painting. Stops suction, seals fire cracks and, at same time, serves as first coat. Possesses exceptional hiding power. Forms a tightly adhering foundation for succeeding coats of white-lead. Works equally well on all interior surfaces—plaster, wallboard, insulating board, brick, concrete. Sold in half-gallon and one-gallon cans, 5-gallon kits and 30-gallon barrels.

DUTCH BOY RED-LEAD. Available in two forms—paste and liquid. The standard paint for iron and steel. Paste is sold in natural orange-red (12½, 25, 50 and 100 lb. kegs) and can be shaded to dark colors for finishing coats. The liquid (gallon cans and 2½ gallon kegs) comes in orange-red, two shades each of brown and green; also in black.

NEWS OF THE MONTH

Beekman Street Hospital Meets Increasing Demand

Unmistakable evidence of the trend of the times is revealed in the annual report of the Beekman Street Hospital, New York City, which shows an operating deficit for 1932 of \$26,288, as compared with \$8,094 for 1931. This is the result of the increased number of patients admitted and treated by the hospital during the twelve-month period, a large percentage of whom were unemployed.

Statistics reveal that the hospital spent \$290,857 on 26,370 patient days of care during the year, and answered 4,032 ambulance calls. Operations numbered 1,591 and the industrial clinic treated 11,002 patients.

Ohio Hospitals Protest Nursing School Regulation

Hospitals in Ohio that conduct schools of nursing recently received an order from the state medical board directing that the principals of nursing be permitted to submit a quarterly or monthly report in person to the boards of trustees of their hospitals. This action caused the Ohio Hospital Association to adopt a resolution stating that:

"1. The Ohio Hospital Association definitely feels that the state medical board has exceeded the authority of its supervision over the conduct of schools of nursing, by passing a ruling on a matter that is purely administrative and entirely within the rights of the individual hospital to determine as it sees fit.

"2. The majority of the hospitals of Ohio have, through years of experience, formulated definite procedures for bringing to the attention of boards of trustees matters of business in an efficient and well ordered manner, which would be materially interfered with if it became obligatory to permit the head of any individual department to go personally before the board with a report that had not previously passed through the proper and established channels as determined by each hospital's form of organization.

"3. We would therefore request that the order above referred to be rescinded by the state medical board at its earliest opportunity and in the

future when there are matters under discussion relating to schools of nursing as conducted by hospitals, that the Ohio Hospital Association be given the courtesy of a preliminary conference before the formulation of definite orders affecting them."

Lancaster Hospital Starts Construction of New Wing

Construction work was started recently on a new wing to the Lancaster Hospital, St. John, New Brunswick, Canada. The work will probably be completed in ten or eleven months.

The new wing will be a two-story brick structure of fireproof construction. It will be about seventy-five feet square. Plans call for a large basement in the wing. The addition will join the present main building and the recreation hut. Fronting on Lancaster Avenue, the addition will present an attractive appearance with its wide-spread lawns.

Dr. S. S. Skinner is superintendent of the hospital.

56 N. Y. Hospitals Report Decreased Income

The first section of the annual report of the United Hospital Fund, made public October 18, showed the fifty-six hospitals sharing in the fund last year received only \$17,508,920 from, or on behalf of, patients; whereas expenditures totaled \$25,132,075. The deficit of \$7,623,155, was about 30 per cent of the total expenditures. Legacies received during the year came to \$41,000, bringing the total of such gifts, which comprise the principal fund of the organization, up to \$1,451,000.

Discussing the problem of balancing hospital budgets, the report says that "hospitals, like business enterprises, have been through the most trying times of their existence."

"Their trustees and administrators, faced with a shrinkage in income from patients and invested funds," it says, "have been called on to enlarge their free service. Private rooms were largely unoccupied, while the wards were full. Through the most rigid economy, increased generosity on the part of trustees and an income in the

number of 'city cases,' they were able to meet the great need. In no instance have they sacrificed medical standards."

Economies made by the hospitals during the emergency are stressed in the report, and appreciation is expressed for aid rendered by the men who served as chairmen of the seventy committees that figured in the drive. It also praises the work of a special committee which, under the direction of Dr. S. S. Goldwater, is examining a plan whereby groups of employed workers may jointly pay for their hospital care through monthly pay roll deductions.

During the year the fund published a book entitled "Accounting and Business Procedure for Hospitals."

Group Hospitalization Is Legally Approved in Ohio

The attorney general of Ohio, on September 26, rendered an opinion to the superintendent of insurance declaring group hospitalization as proposed by the Cleveland Hospital Council and the Ohio Hospital Association to be exempt from the insurance laws of Ohio. His decision is as follows:

"I am of the opinion therefore that, by virtue of the provisions of Section 669, of the general code, none of the laws of this state regulating or pertaining to insurance applies to contracts for the furnishing of hospital service to the general public, individuals or groups, for a certain stipulated charge per year, so long as such contracts are made only with persons for whom such service is to be rendered who are residents of the county where the hospitals or sanatoriums in which such service is to be furnished are located."

New Hospital Is Opened in New York State

A new hospital was opened recently in Catskill, N. Y., to be known as the Greene County Memorial Hospital. The hospital contains twenty-four beds for adults, two for children and eight bassinets. Dr. George L. Branch is chairman of the medical board of the hospital.

We Have Tossed Tradition Out the Window with this NEW, REVOLUTIONARY CHINA

BACK in the dark ages potters angled for public favor with pigments—patterns they hoped would please. And right down the years, potters have continued to think in terms of patterns. There has been no real change in the modeling of china for literally centuries.

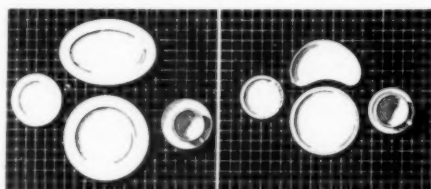
Our homes have changed, our clothes and our cars—but china has clung to traditional modeling—until NOW. For now, backward thinking is over. We have dared to look ahead.

This is our first public announcement of a new china that will stand forth as a blazing challenge to all makers of china, and users as well. Its name is ECONO-RIM, and here's how it got that name—a name to remember.

How  Saves Valu-

able Space on Table and Tray

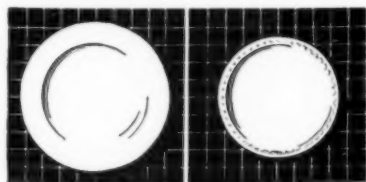
The diagrams below show at a glance the almost unbelievable space economies possible thru the use of Econo-Rim. Not only will Econo-Rim cut down the necessary tray or table area as much as 34%.



Left: A typical luncheon service using a 10" plate.

Right: The same luncheon served on Econo-Rim. Luncheon A occupies an area of 456 square inches. B on Econo-Rim occupies an area of 293 square inches. The saving in space is 34%. And the actual, usable food area of both table set-ups is approximately the same.

But in doing so, it actually adds in some cases as much as 58% to the usable food area of an individual plate in comparing that plate with an old style plate of the same over-all diameter. The diagrams below, drawn from actual measurements prove this beyond a doubt.



Left: A conventional 10" plate. Area actually occupied by food—42.8 square inches.

Right: Econo-Rim measures 8-3/16 over all. But provides actual usable area for food of 41 square inches. Or a saving in space over the 10" plate of 36.5%.

How  Will Affect

Food Profits

Every figure we have quoted was taken from an engineer's yardstick—they are indisputable facts. Remember what we said at the start about modeling having stayed the same for centuries. Over-all dimensions always the same. And particularly the rims.

We started with rims. First, why have rims? Secondly, did they have to be any set size? Rims serve two purposes. Something to take hold of. And a place for the pattern. Potters have stopped right there—the rim was a place for the pattern. Nobody seemed to realize that the rim could be made beautiful without an elaborate decoration. We cut down the rim. Introduced the pattern into the center of the plate. And by simple embossing, with just enough color to set it off, we discovered we had the most distinguished service imaginable.

Now to translate those savings into terms of actual profits to you who will buy this new china.

In Restaurants and Tea Rooms

If this is your business you are obliged, if successful, to constantly wrestle with the problem of additional space. You have, for example, a growing demand for "deuces." And all your tables now are probably overcrowded. What to do about it? Econo-Rim is the solution. Bring in your smaller tables. Serve the same food on just about HALF the table area now required. Get away from the present cluttered effect. And encourage larger orders because there is now plenty of room. That's what Econo-Rim does for you—and it's an easy matter to see how that will affect your profits.



Counter Service, Bars, Etc.

Again, Econo-Rim fills here a long-felt need. Sandwiches stay on the plate. Don't spread over the edge. And the busier the counter—the more Econo-Rim's space-saving features are appreciated. Every customer is treated as an individual—with his own food in front of him where it belongs.

Cafeterias

Econo-Rim is "made-to-order" for cafeteria use. Every tray holds more dishes. Keeps the customer adding to his order, because no tray ever looks full. Less chance for mishaps in carrying, too. Each individual plate is easier to handle—this is true in the case of customers as well as the help.



In Hospitals

Is there ever enough room on any patient's tray? There will be with Econo-Rim service. For balky appetites there is nothing quite so bad as a tray that looks overloaded. And nothing quite so sure to rouse the appetite as a tray that looks like "just enough and no more." We expect a lot of hospital orders, for Econo-Rim is what they have been looking for. Up to now they have never had it.

Why You Should Buy

 Now

1. Econo-Rim brings to any user an actual dollar-and-cents profit that can be quickly and accurately measured. 2. Econo-Rim will please every customer—will actually increase the size of the order. 3. Econo-Rim is easier to handle than any present china. Its breakage will be less. Its replacement cost lower in proportion.

Send TODAY for a descriptive folder which will explain more fully just exactly how Econo-Rim will fit into your own business—how it will save space—add to the size of a customer's order—MAKE YOU A HANDSOME AND IMMEDIATE PROFIT. The coupon below brings the folder to you—Free.

Onondaga Pottery Company, Syracuse, N. Y. New York offices, 551 Fifth Avenue. Chicago offices, 58 East Washington Street.

SYRACUSE CHINA
ECONO-RIM
O.P.CO.
TRADE MARK
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A PRODUCT OF
ONONDAGA POTTERIES
makers of Syracuse China

"Potters to the American People since 1870"

ONONDAGA POTTERY CO.,
SYRACUSE, NEW YORK.

Send me your folder on Econo-Rim.
It sounds most interesting.

Name

Address

PERSONALS

DR. JOHN E. DAUGHERTY, hospital consultant and former executive director, Jewish Hospital, Brooklyn, N. Y., has been appointed superintendent, Jamaica Hospital, Richmond Hill, N. Y.

GEORGE VON L. MEYER has been named director, Children's Hospital, Boston. MR. MEYER has been a member of the hospital's board of managers since 1915.

VALENTINE R. BOSWORTH, superintendent, Chicago Memorial Hospital, Chicago, died October 16 after a short illness. MRS. BOSWORTH, who was fifty-three years of age, joined the hospital staff in 1915.

DR. M. A. DAVIS was recently appointed superintendent, Stone Memorial Hospital, Carthage, Mo.

SISTER REGINA is the new superintendent, St. Vincent's Sanitarium, St. Louis.

REV. HARRY E. HESS has been named superintendent, Nebraska Methodist Episcopal Hospital, Omaha, Neb.

DR. JOHN C. DAVIS has been appointed superintendent, Meadville City Hospital, Meadville, Pa.

SISTER M. ALOYSIUS has been named superintendent, St. Anthony's Hospital, Hays, Kan.

DR. WILLIAM DOBSON was recently appointed superintendent, Veterans Administration Hospital, Augusta, Ga.

REV. JOHN J. HEALY has been appointed diocesan director of Catholic hospitals for Arkansas, succeeding Msgr. John P. Fisher, who died on September 17.

LUCILLE LEETCH has been appointed superintendent, Fairbury Hospital, Fairbury, Ill.

ALEXANDER H. CANDLISH, formerly superintendent of the Vassar Brothers' Hospital, Poughkeepsie, N. Y., and also for twenty-one years superintendent, New York Post-Graduate Medical School and Hospital, New York City, died in New York City on September 26, at the age of fifty-seven.

EDNA LARSON has resigned as superintendent, Reedsburg Municipal Hospital, Reedsburg, Wis., due to ill health. IRENE MEYER is the new superintendent of the hospital.

MYRTLE O. THORSON is the new superintendent, Downey Hospital, Gainesville, Ga. For five years prior to assuming her new position, MRS. THORSON was superintendent, Mobile Infirmary, Mobile, Ala.

DR. A. F. SPURNEY, president of the board of trustees, Polyclinic Hospital, Cleveland, has assumed the superintendency of the institution.

SISTER MARY MARCELLA is the new superintendent, St. Francis Hospital, Topeka, Kan.

DR. FRANK N. GORDON, medical officer in charge, Veterans Administration Hospital, Dwight, Ill., has been transferred to the Hospital of the Veterans Administration Home, Dayton, Ohio, where he succeeds the late LT. COL. VERNON ROBERTS.

MAXWELL LEWIS has been appointed business manager, Sydenham Hospital, New York City.

MARY SCHEER, formerly superintendent of nurses, Grant Hospital, Chicago, is now superintendent, school of nursing, Union Hospital, Terre Haute, Ind.

HELEN HOWITT, formerly superintendent of nurses at the Presbyterian Hospital, San Juan, Porto Rico, has been appointed superintendent of nursing service of the Rockefeller Foundation in Santa Tomas Hospital, Panama City.

CHARLES E. FINDLAY has been appointed superintendent of Butterworth Hospital, Grand Rapids, Michigan, to succeed SIDNEY G. DAVIDSON, who recently accepted the position of superintendent of Grace Hospital, New Haven, Conn. MR. FINDLAY has been superintendent of City Hospital, Springfield, Ohio, since May 1, 1930.

MARIE LICHT, formerly superintendent of nurses, St. Mary's Hospital, Brooklyn, N. Y., has been appointed superintendent of nurses, Bushwick Hospital, Brooklyn.

SISTER ROSE VINCENT, who served as superintendent, St. Mary's Hospital, Passaic, N. J., for thirty-four years until her death on May 28, was memorialized on October 2 when a marble plaque expressing appreciation for her services was unveiled in the hospital chapel.

DR. CHESNEY M. RAMAGE has been appointed superintendent, Fairmont Hospital, No. 3, Fairmont, W. Va., succeeding DR. WILLIAM A. WELTON.

MILDRED L. NEWKIRK has been named acting superintendent, Kewanee Public Hospital, Kewanee, Ill.

LOUISE PETERSON is the new superintendent, Shawano Municipal Hospital, Shawano, Wis.

DR. CLIFFORD L. WILLIAMS has been appointed superintendent, Logansport State Hospital, Logansport, Ind., succeeding DR. O. R. LYNCH, whose resignation was announced recently.

DR. REBECCA PARISH, superintendent since 1907, Mary J. Johnston Memorial Hospital, Manila, Philippine Islands, has resigned. DR. HAWTHORNE DARBY is the new superintendent of the hospital, it is reported.

HELEN STOLESON has been named superintendent, Savanna Public Hospital, Savanna, Ill., succeeding AMY D. AADALEN, whose resignation was announced recently. MISS STOLESON was formerly assistant superintendent, Washington Boulevard Hospital, Chicago.

DR. L. L. CULP has succeeded DR. H. R. HUMMER as superintendent, United States Asylum for Insane Indians, Canton, S. D.

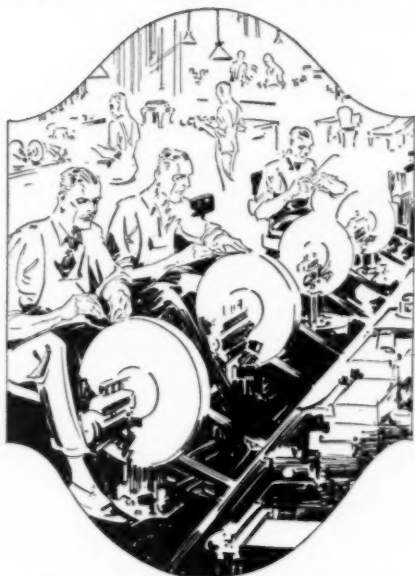
HAZEL H. RITCHER has been elected superintendent, Lutheran Hospital, Beatrice, Neb., succeeding ANNA GROTE.

DR. J. L. RESSLER has resigned as superintendent, Lancaster County Hospital for Insane, Lancaster, Pa., effective November 1.

ALICE H. OTTO has resigned as superintendent of nursing, Montefiore Hospital, New York City. ANNE C. DONAHUE, assistant superintendent, will be in charge of the department during the period of reorganization.

DR. CHARLES W. MOOTS, who for the last several years has been a visitor for the American College of Surgeons, died in Orange, Calif., October 14. Since his retirement from active medical practice, DOCTOR MOOTS has devoted most of his time to furthering the standardization work of the American College of Surgeons.

Who REPAIRS YOUR INSTRUMENTS?



An actual view of our Repair Department

Is it the time-honored but highly inefficient "scissors grinder"—the man who thinks that in order to do the job right he must remove at least $\frac{1}{8}$ inch of metal? Or do you send your instruments to the hardware store which in turn "farms" the job out to some one else?

You may be satisfied with the work you are getting—never knowing that it can be done better—but it can!

Send a trial order to us. Let us repair, replate or completely recondition your instruments in a large airy, daylight shop devoted entirely to this class of work. You be the judge. Let us convince you that "WOCHER'S" do it better, faster and for less.

WOUND CLIPS



The obvious advantage of the Wound Clip over the conventional catgut suture in some cases accounts for the great popularity of the Wocher-Butler Wound Clips. Another feature in their favor is that they are uniformly sharp. They will operate smoothly. Save time, money and temper by using clips whenever you can.

AX340. Butler Clips on metal frame, regular size, 12mm.	
Per 100	\$0.35
AX341. Per 1000	\$3.00
AX343. Butler Clips on metal frame, medium size, 14 mm.	
Per 100	\$0.40
AX344. Per 1000	\$3.50

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Cincinnati, Ohio

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WHAT
THE
NURSE
READ

(in October
McCalls)

HEAD YOU WIN



FEET YOU LOSE

... And their puzzled wives admit that *short* men complain just as loudly as tall men about shivering shoulders and frigid feet! And why shouldn't they?

For every one sleeps with his pillow against the head of the bed. If he yanks up the blanket to cover his shoulders, our pops the bottom tuck, letting zero breezes play tag with his toes! To end this blanket tug-of-war forever, Nashua announces

Nashua 90 INCH Blankets 7½ FEET LONG

Are your blankets as big as you'd like them to be? Do they invite restless, com-

This is WHAT SHE SAID

"I will be interested to see your catalogue of blankets. Saw your advertisement in McCall's Magazine.

"I want to say I am certainly glad you are putting out blankets long enough to stay tucked in when your shoulders are covered. I am a nurse so of course appreciate this. I will certainly do all I can to call people's attention to this extra length and its advantages."

This nurse from California must have struggled to keep many a restless patient covered with short blankets. Her promise to recommend Nashua 90's proves that. Have you seen them? (They're very new, you know.) If not, ask your supply house to show them to you. Or write us for catalogue and prices of the different types and styles.



Nashua Mfg. Co.

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Box 1206 Boston, Mass.

Anchor Sheets

Indian Head Fabrics

NEWS OF THE MONTH

Construction Will Start Soon on Chicago Hospital

The long delayed building program of the new Chicago Polyclinic Hospital, which will be built at Oak and LaSalle Streets, Chicago, to replace the present Henrotin Polyclinic Hospital, is rapidly nearing fulfillment.

Plans for the new 100-bed structure will be completed about December 1. It is then intended to take bids at once and start construction as soon as possible thereafter. The new hospital is to be erected just north of the present Henrotin Polyclinic Hospital, which will be razed.

Veronica Miller is superintendent of the institution.

New Hospital Is Opened to Army and Navy Men

The doors of the big new \$1,500,000 Army-Navy General Hospital, Hot Springs, Ark., were thrown open for the reception of patients on September 20. The formal opening will not take place until high officials of the government can arrange to be present.

The government has built in Hot Springs a hospital that is the last word in institutions of this kind, a beautiful structure that contains every facility, scientific and otherwise, for the care of patients. Incidentally, it is the tallest building in Arkansas.

The building is of reinforced concrete, veneered with a light colored face brick, trimmed with limestone and terra cotta and embellished with ornamental aluminum and bronze. It has a central tower that is twelve stories high.

There are a center wing and two side wings, each six stories high. The building contains approximately five acres of floor space.

On top of each of the side wings are heliotherapy decks. An air conditioning plant that serves the entire surgical section has been installed on the eleventh floor. The hospital will use both water from the radio-active springs that are owned by the federal government and domestic water. Both waters will be cooled as desired. Water from the hot springs, however, will be used exclusively in the bath house, according to present plans.

The hospital will have a minimum

capacity of 412 beds, but by use of the porches adjacent to the wards the bed capacity can be increased to more than 600. Both porches are glass enclosed, screened and heated.

Construction is not yet completed, for in order to make the institution a self-contained unit it will be necessary to provide a number of additional facilities.

Newspaper Stresses Need for Group Hospitalization

That there is general public interest in group hospitalization is indicated by the fact that the *Milwaukee Sentinel* dealt with this subject editorially at the close of the American Association's convention. The editorial said in part:

"That the two factions (hospitals and physicians) got a little closer together on the issue, at least so far as the local situation is concerned, is evidenced in the second appearance of Dr. James C. Sargent, president, Milwaukee County Medical Society, before the convention. After having condemned the policy as unsound and leading to 'chain belt factory methods of providing medical service' in his first appearance, Doctor Sargent later stated:

"If the private hospital and the private doctor are to survive, they cannot escape the necessity for catching up in some way with the modern installment method of living. There is a growing conviction that nothing will accomplish this better than some use of the insurance principle as a means of anticipating and equalizing the costs of sickness."

The *Sentinel* says there can be little question about the need for some kind of plan that will enable the person of modest means to avail himself of hospital care. The editorial concludes with this comment:

"The best plan, it seems evident, and on this both the hospital executives and medical men are beginning to agree, is for all the hospitals in a city to join in the insurance program. This avoids any appearance of competition between the hospitals for patients, and enables the individual to select his own hospital, which in most cases would be one of those with which his doctor has connections."

More Beds Needed for Maternity Cases in N. Y. C.

Mayor O'Brien of New York City and the Board of Estimate and Apportionment were urged to authorize the Department of Hospitals to use available space in private hospitals for maternity cases, in a letter sent on October 8 by Mrs. Gerard Swope on behalf of the nursing committee of the Henry Street Visiting Nurse Service. The request was being made because of the "distressing conditions" which the nurses found in the homes of patients who have not been admitted promptly to hospitals because wards are overcrowded. The letter reads as follows:

"The nursing committee of the Henry Street Visiting Nurse Service urges your immediate action on the question of improving maternity care in this city, which question we understand is on an early calendar of the board.

"The members of our committee have been for many years greatly concerned in the problem of adequate maternity care in this city since our staff of 250 nurses cares annually for more than 15,000 maternity patients.

"The distressing conditions in the homes make hospitalization frequently imperative but the overcrowded situation in the city hospitals in many instances has rendered impossible any relief for those suffering from this regrettable condition.

"We appreciate the tremendous handicap placed on the Department of Hospitals because of the ruling which restricts the use of private hospital maternity wards to emergency cases only. And we earnestly request that the Board of Estimate and Apportionment will give the Department of Hospitals the power to use such available space in the private hospitals as is deemed necessary for maternity care of patients not otherwise provided for."

New Infirmary Is Opened

A new infirmary at Undercliff State Tuberculosis Sanatorium, Meriden, Conn., has been opened. It is called Kimball House, as a memorial to Arthur Reed Kimball of Waterbury, Conn., a former member of the state commission, who died about nine months ago.



Do your X-RAY SCREENS keep you guessing?

At surprisingly low cost, replace aged, spotted screens, with their misleading shadows



Intensifying Screens have suffered from the depression like everything else has. Many old veterans have been forced to serve more than their allotted time and are now over-due for retirement.

If you are still using screens that are old and spotty... why gamble any longer on the dull, uncertain images they produce? At very moderate cost you can replace them with genuine Pattersons, and benefit through the rich contrast and sharp detail these fine screens assure.

★ Improved Screens—Reduced Prices

New cost-cutting production methods enable Patterson to offer these screens at exceptionally low prices that are sure to appeal to you. Remember, too, that these screens are the very finest obtainable, incorporating Patterson's recent outstanding improvements in screen construction.

Hi-Speed Combination; a "thick and thin" combination of screens which produces ultimate speed and assures absolute uniformity of speed.

Par-Speed Combination; combining the speed previously obtainable in the former Patterson "Speed" Screens with the durable finish of the former "Standard".

★ Easy to Check Up . . .

Just ask your dealer for full information. He'll gladly demonstrate the new Patterson Screens and furnish the low prices at which they can be bought.

Or write us. Merely list the screens you wish to replace and state the kilowatt capacity of your X-Ray plant. We will at once send you our recommendations.

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Wheeling, West Virginia, uses Anchor Brand*

COMFORT for your patients ECONOMY for your budget

Take a tip from the experience of Ohio Valley General Hospital and other well known hospitals who use Anchor Brand Sheets and Pillow Cases exclusively. Their purchasing agents prefer Anchors for two reasons—luxurious comfort and long wear.

Dwight & Anchor SHEETS AND PILLOW CASES

The even weave and smooth finish of these handsome sheets and pillow cases feels soothing to the skin. And how important this is when often the speedy recovery of a patient depends upon completely relaxed nerves.

The firm construction of the cloth stands the steady trips from bed to laundry day after day for a long, long time. And how this cuts down replacement costs and mending.

When you next order sheets or pillow cases, specify Anchor Brand. You'll never regret it.



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THE FOOD VALUE OF CRANBERRIES

*Their attractiveness
and palatability*

*A good source of
Vitamin C, with
small amounts of
Vitamin A.*

*The presence of iodine
in cranberries*



Analytical Researches on these important points concerning cranberries have been made by C. R. Fellers, Ph. D. of Massachusetts State College, Amherst. A copy of the report will be mailed on request.

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NEW YORK CITY

NEWS FROM MANUFACTURERS

CALGON—A NEW LAUNDERING AGENT

It has been discovered as the result of an investigation conducted jointly by the Buromin Company, Pittsburgh, the Mellon Institute of Industrial Research and the American Institute of Laundering that Calgon, a new phosphate, possesses distinct utility in laundering processes.

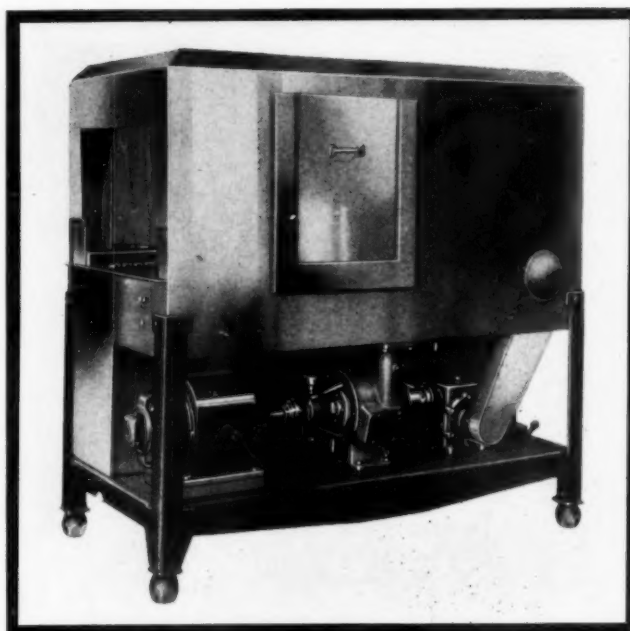
According to the report on this research, Calgon has the unique property of dissolving lime soaps by transforming them into active sodium soaps. The utilization of this property in the washing formula is said to represent a real innovation in laundering methods, because it enables the removal of lime soaps as an integral part of the washing formula. The occurrence of lime soaps in soft water laundries is pointed to as far more widespread than is commonly thought. The research proved that Calgon is not injurious in any way to textile fabrics nor to colors, and that its use effects an economy in washing supplies.

Copies of the complete report are procurable gratis upon application to the Mellon Institute of Industrial Research, Pittsburgh.

MODERN DISHWASHING EQUIPMENT

To meet the requirements of both large and small institutions, the Colt's Patent Fire Arms Mfg. Co., Hartford, Conn., has brought out four new Autosan Dishwashers. The exterior appearance of the machines gives an impression of efficiency and cleanliness because the surfaces have few projections to catch dust and dirt, and consequently cleaning should be a simple procedure. The materials used are galvanized iron, copper or monel metal.

The operating mechanism has been designed in keeping with the exteriors of the dishwashers. The heavy duty pumps are equipped with removable front plates for easy inspection and cleaning. A nonclogging and intercepting



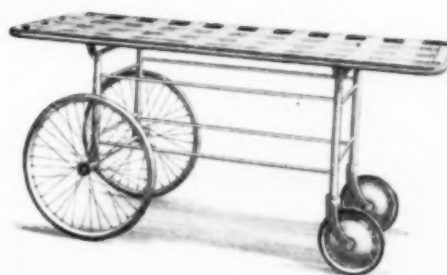
This conveyor type dishwasher has a capacity of 700 to 1,000 persons per meal.

Colson

—the brand that
inspires **CONFIDENCE**

HOSPITAL executives know that Colson Wheel Chairs are good for a decade—perhaps a generation of hard use—that they are built to forestall accidents and to minimize service difficulties. The same confidence is extended to everything bearing the Colson brand and manufactured by the Colson Company. Institutional experience with Colson sturdiness, convenience and low upkeep costs wins preference for Colson Food Service Equipment and Colson aids in operating room, ward, laundry and elsewhere. Be sure your forthcoming purchase comes from

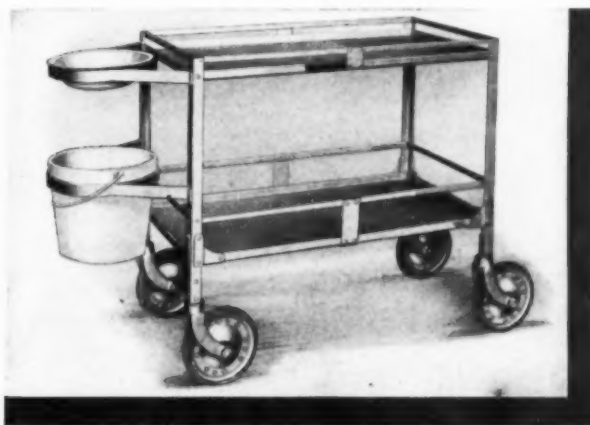
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Elyria, Ohio



● ONE OF SEVERAL WHEEL STRETCHERS



● FOOD CONVEYOR—ELECTRICALLY HEATED



● SURGICAL DRESSING TRUCK

OUT FROM UNDER THE ANESTHETIC OF FEAR

Up from the doldrums . . . back toward normal, healthy thinking and planning . . . out from under the paralyzing forces of fear . . . the nation is moving once more.

On every side, our contacts with hospitals show ample evidence of the revivifying forces at work. Executives who have long been puzzled and uncertain are moving more surely, more confidently.

New ideas, new methods, new materials, are finding far readier acceptance. Hospital management is once again insisting that equipment and materials must be maintained at the highest levels of efficiency and quality.

American Hospital Supply Corporation, now, as always, is fully in step with the trend. Among recent major improvements in hospital equipment and supplies it has contributed are—

OXYGENAIRE

—the silent, motorless boon to oxygen therapy, recently accepted by the Council on Physical Therapy of the A.M.A. . . .

BAXTER'S INTRAVENOUS SOLUTIONS

—the standardized vacuum-packed glucose and saline solutions of unvarying strength and purity.

TOMAC UTILITY SHEETING

—the first light weight, live rubber sheeting ever offered the hospital field (already accepted by hundreds of hospitals) . . . and numerous other recent improvements.

And our most recent improvement in service is the opening of a new office in New York City. The address is 315 Fourth Avenue . . . phone Gramercy 5-3057.



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15 N. JEFFERSON ST. CHICAGO	108 SIXTH STREET PITTSBURGH
<i>Selected</i>	<i>Products</i>

type of slotted spray arm is used to give fast, effective and positive cleaning because of its uninterrupted action. A final rinse spray that is boiling hot is given through special slot type rinsing nozzles to complete sterilization. The spray arms are removable without tools, and the scrap trays may be removed without tipping and spilling the contents. Large leakproof doors in the side of the machine bring all inside parts within easy reach for cleaning and adjustment.

The larger dishwashers are equipped with two tanks and separate pump units, but the R-2 model which has a capacity of 700 to 1,100 persons a meal, cafeteria service, has one. The R-4 model has a capacity of 1,000 to 1,500 persons, and the R-6 and R-8 models will care for restaurants feeding approximately 2,000 persons.

AN IMPERVIOUS FINISH FOR FURNITURE

The constant use of medicine and chemicals in the hospital makes it imperative that the finish given to furniture shall not be marred by these substances. There is a considerable item of expense in refinishing furniture that has been ring marked by glasses and bottles, or the high luster removed by spilled liquids. If the furniture is not refinished, but left with a scarred surface, it is likely to have a psychologic influence on the public and the personnel that will be detrimental to the hospital. The personnel will become more and more careless, and the public will attribute an inefficiency, deserved or not, to all activities carried on in the hospital.

A finishing substance called Durako, developed by the Preserve Surface Co., 4240 Fourteenth Street, Detroit, is designed to prevent this constant refinishing. Tests by the manufacturer have shown that this new finish is absolutely waterproof, and that it is resistant to acids, alkalis, alcohol, medicines and heat. It will not chip or check, because the greater portion of the finish has penetrated into the wood. Also it will not scratch white.

A NEW STERILIZING METHOD

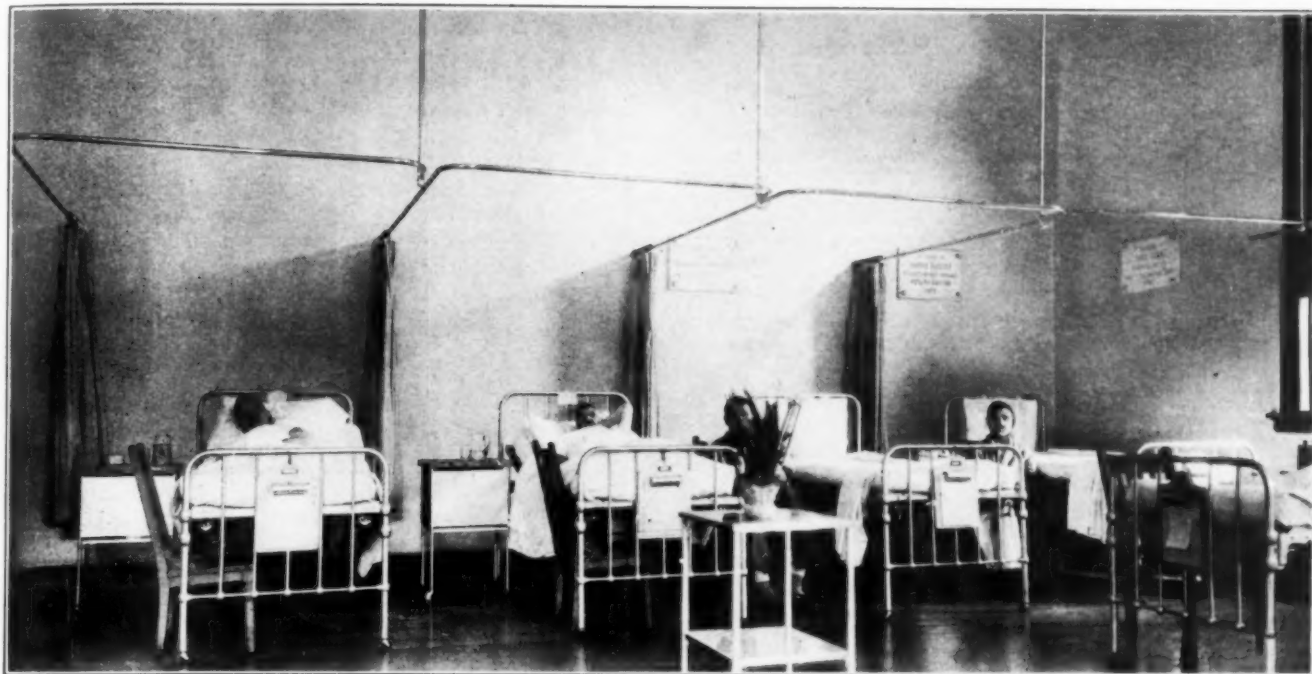
Heretofore the effectiveness of pressure sterilizers has been gauged solely by the factor of steam pressure, with little or no regard for the destructive element—temperature—which is always dependent upon the accuracy of air elimination.

It has long been known that the sterilizing influence of steam has to do only incidentally with pressure, but altogether with the degree of temperature and the moisture always present in saturated steam. It has also been known for many years that complete sterilization of surgical supplies is readily accomplished in the presence of pure steam at ten to fifteen pounds pressure.

The new sterilizing system announced recently by the American Sterilizer Company, Erie, Pa., makes use of an ingeniously applied thermometer which measures the temperature of the coldest medium within the sterilizing chamber, instead of the average medium temperature surrounding the load.

The character of the steam with regard to the presence of air is dependably indicated by the thermometer. The period of sterilization is measured from the time the thermometer indicates the minimum temperature at which sterilization is recommended, instead of from the time the pressure gauge indicates fifteen pounds pressure. If for any reason the air has not been properly evacuated from the chamber, this new device immediately indicates that fact and provision is made on the machine for removing

"New deal" for patients opens up new source of income



Mt. Sinai Hospital, New York City—completely equipped with Day's Curtain Screening

A RECENT editorial in *Modern Hospital* significantly remarks—

"... The private hospital, except in cases of medical or surgical emergency, must collect a fee from ward patients if it is to survive. The public is gradually learning that it must pay at least a moderate fee for hospital care. ..."

Many hospitals have found that Day's Curtain Screening provides that *plus value* which induces patients to willingly pay a small fee for ward service that includes the privacy and convenience of this modern bedside screening.

Patients like Day's Curtain Screening. And nurses like it too. It's so clean, quick and convenient. With the curtains back against the wall, the rooms are nice and light and airy. No trouble to enclose an entire bed with one curtain. Nothing to lug around. Nothing to obstruct the movements of nurses and doctors.

Wouldn't you like to have this modern system of bedside screening in *your* hospital? Over 350 installations in the country's leading hospitals auto-

matically recommends this equipment to you. Equally suited for new building construction and for modernization programs.

Our Engineering Department will gladly make a careful study of your particular needs and submit recommendations that will assure you of outstanding advantages at a price comparable with any other screening.

Want complete information? Just mail the coupon for our interesting and helpful booklet "Privacy in the Modern Hospital."

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I'd like to have a copy of "Privacy in the Modern Hospital"—which shows how leading hospitals have modernized their facilities with suitable bedside screening.

Your Name

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Day's Curtain Screening Equipment

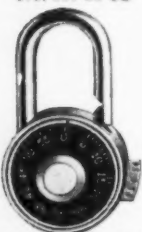
Quickly Adjusted These Stools Never Slip! Height Always Right



Ever-Hold Stool
No. 613-24



Ever-Hold Chair
No. 117-21 CS



Combination Pad-
lock No. K-45A

Makes All Workers More Efficient

Instantly you can raise or lower a Kewaunee Automatically Adjustable Steel Stool or Chair to any height without use of pliers, wrench or thumb screws. Just place the seat at desired level and it stays there—patented construction makes slipping impossible. These light, strong stools end uncomfortable, body-fatiguing positions. Send for Adjustable Steel Stool Catalog.

Write for Combination Lock Catalog

Kewaunee makes a very complete line of Master Keyed Combination Padlocks and Desk Locks. Write today for Kewaunee Lock Catalog. End the nuisance of pass keys.

If you are considering the purchase of new furniture, be sure to write also for the Kewaunee Laboratory Furniture Catalog and get Kewaunee's bid.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS

C. G. CAMPBELL, Pres. and Gen. Mgr.

112 Lincoln St., Kewaunee, Wis.

Eastern Branch: 220 E. 42nd St., New York, N. Y.

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the obstruction to the air discharge system, which invariably is the cause of improper air elimination and faulty sterilization.

This new sterilizer can be operated in accordance with a simple procedure in which all doubt about the attainment of proper character of steam is removed. This ensures the highest efficiency in sterilization at all times. This known high efficiency makes possible the reduction of pressure and corresponding temperature to a range such that delicate surgical supplies can be sterilized perfectly without risk of injuring them.

It is not necessary with this machine to sterilize surgical supplies at pressures in excess of 15 pounds, nor is it necessary to prolong abnormally the period of sterilization. This should result in an enormous saving to hospitals in materials that heretofore have been injured or destroyed by excessive temperature in machines operated at high pressures in order to avoid the hazards of the older, indefinite method of measuring the quality of the sterilizing steam.

NEW TRADE CATALOGUES AND PAMPHLETS

The J. B. Ford Company—A thorough study of cleaning problems, called "Wyandotte Products for Hospitals and Institutions," is offered by The J. B. Ford Company, Wyandotte, Mich. It is an excellent handbook for the hospital executive who has the responsibility of keeping things clean. Maintenance cleaning, culinary cleaning and hospital laundering form the three main divisions of the book. Five Wyandotte products are discussed in detail. A sixth product, Steri-Chlor, acts as a germicide. The maintenance cleaning division covers floors, painted surfaces, porcelain and enamel equipment and marble. Culinary cleaning, broad in scope, includes directions for washing dishes, kitchen equipment, utensils and silver, and finally, instructions for disinfecting fruits and vegetables. All hospital laundry work is analyzed. Specific formulas and instructions are given in the proper use and care of laundry equipment.

The Seamless Rubber Company—In a catalogue entitled "Fine Hospital Rubber Goods," The Seamless Rubber Company, New Haven, Conn., displays its hospital sheeting, surgeons' gloves, hot water bottles and allied products. A page is devoted to a rubber-electric heating pad, made of rubber and metal, with its heating element entirely embedded in rubber. Double thermostats automatically maintain the temperature required.

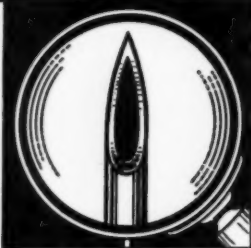
The Holtzer-Cabot Electric Co.—An eight-page folder explains the new nurses' Phonacall system of The Holtzer-Cabot Electric Co., 125 Amory Street, Boston. Aural communication between the patient in bed and the nurses' desk is achieved, with immediate service for the patient and a saving of the nurse's time. Specifications are included for installation of a complete Phonacall and signal system.

Finnell System, Inc.—New and modernized floor machines are described by the Finnell System, Inc., Elkhart, Ind., in a new leaflet. Distinguished for high speed and operating efficiency, these machines are the finest the company has yet produced.

F. C. Huyck & Sons—Samples of institutional blankets are attached to a color swatch card received from F. C. Huyck & Sons, Kenwood Mills, Albany, N. Y. All wool, cotton warp and wool filled blankets are attractively illustrated in color with notations as to special bindings.

Colgate-Palmolive-Peet Company—The new dispenser referred to in last month's issue, supplies dry soap only.

The NEEDLE with a permanent SHARP EDGE



Nothing takes the place of steel. VIM Needles are made from genuine Firth Brearley Stainless Steel—they remain sharp indefinitely. They do not have to be wired or dried after cleansing. VIM Needles outlast ordinary Needles as much as 5 times. Ask for them by name—VIM, the needle with the permanent sharp edge and the Square Hub.

**VIM STAINLESS STEEL
NEEDLES**